REINDEER, DOGS, AND HORSES AMONG THE TOZHU REINDEER HERDER-HUNTERS IN THE SIBERIAN TAIGA

By

Tayana Arakchaa, M.A.

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APPROVED:

Patrick Plattet, Committee Chair
David Koester, Committee Member
Peter Schweitzer, Committee Member
Michael Koskey, Committee Member
Ben Potter, Chair
Department of Anthropology
Todd Sherman, Dean
College of Liberal Arts
Michael Castellini, *Dean of the Graduate School*

Abstract

Anthropological studies have typically represented reindeer as the uniquely key domesticated animal species for Siberian people. For Tozhu reindeer herder-hunters, however, such a perspective ignores the important roles of dogs and horses. These species are equally vital and interdependent partners of daily life in the mountainous areas of Tuva where Tozhu people live. Each animal comes with specific characteristics, challenges and benefits that necessitate a multispecies perspective—the reindeer-dog-horse triad of Tozhu hunting and reindeer herding economies. This research completes the picture of how taiga-dwelling Tozhu and the three important animal species co-exist together. It seeks to portray: 1) how the Tozhu reindeer herder-hunters interrelate the role of these animals in hunting and reindeer herding; 2) how their intense crossbreeding of dogs and horses has in turn influenced human-animal relationships; and 3) how humans and animals cooperate with each other to achieve shared goals.

An overview of anthropological studies of human-animal relations is presented in Chapter 1 and has revealed that humans and their animals are bound in mutual relations in which humans and animals have reciprocally influenced each other. In discussions of hunting and herding, the basic social concepts of "trust" and "domination," connected to "captivity" and "freedom," have become prominent social concepts for interpreting human-animal relations. In the case of the animals with which Tozhu herder-hunters interact in the taiga, both principles, "trust" and "domination," can be observed, though the widespread idea that animals give themselves to humans is not shared by the Tozhu. Chapter 2 of this thesis provides necessary background on the history of the Tozhu people. Chapter 3 outlines the social organization of reindeer herding and hunting in the Tozhu district of the Tyva Republic and focuses on the history of reindeer herding and hunting during the Soviet and post-Soviet eras, particularly the transition of Tozhu from small to large scale reindeer herding production. Scholars have described this transition as an abrupt change to meat-oriented production. Close scrutiny of the history of Tozhu reindeer herding and hunting reveals that the particularities of the fur trade dictated a gradual shift from small-scale to large-scale reindeer herding in order to provide reindeer hunters and villagers with reindeer to utilize as a means of transportation. Collective farms reconstructed reindeer herding and hunting by introducing new forms and techniques in their economies. Chapter 4 describes the role of reindeer and the nature of human-reindeer relationships among the Tozhu. Chapter 5 focuses on

the role of the indigenous breeds of hunting dog, particularly their role in hunting and on crossbreeding during the Soviet era. The chapter also discusses how dog breed, gender, experience, age, and specialization affects hunting. It also examines the stealing and eating of dogs in the Tozhu district. Chapter 6 describes the role of horses in Tyvan ontology and in Tozhu economies. It also discusses crossbreeding during the Soviet and post-Soviet era and how the Tozhu are interfacing with crossbreeds today.

Analysis of changes in hunting and reindeer herding organization and the history of dog and horse crossbreeding sheds light on the balancing of human relationships with their animals and animal relationships with their humans. Hunting with dogs, for example, has actually provided a stimulus to domesticate reindeer for riding. The practice of riding allows humans to keep up with the dogs during the search for prey in winter. Tozhu practice also includes maintaining a balance between animal captivity and freedom in order to manage multiple animals successfully. All three species are essential for herder-hunters, and one species cannot be said to be more or less important than the others.

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Note on Transliteration

Russian, Tyvan, ancient Turkic, as well as other Turkic and Mongolian languages are represented in this dissertation. Russian, Tyvan, and Turkic words are spelled according to the guidelines of system of the Library of Congress Standard Romanization. All these words appear in italics before their direct translation. However, my goal of standardizing transliteration of Tyvan was a challenge because many Tyvan words have entered the everyday Russian vocabulary of the Tyva. In the text, I simplified some common Tyvan geographical names, particularly district names (although the Tyva usually use Tyvan names), to make them easier for the English reader; such names are rendered in the Russianized forms and do not contain diacritical marks. Likewise, the text has some exceptions in maintaining consistency with regard to transliteration; because there are a few geographic names that are widely familiar in their English form, I have opted for that form. For instance, I use taiga, Soiot, Altai, and Buryatia, well established forms in literature and mass media, instead of tayga, Soyot, Altay, and Buryatiya. In addition, I transliterated three special Tyvan letters (that do not exist in Russian and English) following the standard version of commonly accepted Turkic-style spelling, for example, Ӧ ӧ for Ө ө; Ӱ ӱ for Ү ү; and Ң ң for Ң ң.

Preface

This dissertation is the outcome of several field research trips to the Tozhu reindeer herder-hunters, a small community of people in the Tyva Republic in Siberia who live in partnership with multiple animals in the taiga zone. The Tozhu speak the Tyvan language, which belongs to the Turkic language family. It was in fact the Tyvan language which gave the word *taiga* to the world. To understand the contemporary Tozhu reindeer herder-hunters' lives, I spent several months living in reindeer herding camps and in Adyr-Kezhig village. This firsthand experience provided me knowledge of the Tozhu world, including their daily lives as well as the chance to observe their co-existence with reindeer, dogs, and horses. One of the most important ideas in this dissertation began to coalesce after reading a remarkable book *The Invaders: How Humans and Their Dogs Drove Neanderthals to Extinction* by Pat Shipman, which argued that 50,000 years ago modern humans formed an alliance with wolf-dogs that enhanced human survival. The combination of the ability to borrow the traits of wolf-dogs and climate change are what caused Neanderthal extinctions, Shipman proposes. After reading this book, I began pondering what having dogs would mean to early taiga hunter-gatherers and whether domestication of wolf-dogs might be related to domestication of reindeer and how this might revise the then generally accepted idea of reindeer domestication having occurred 10,000 years ago, completely ignoring domestic dogs in this estimation. In addition, it is considered that reindeer herding techniques were borrowed from early horse breeders and that this knowledge significantly contributed to reindeer domestication in the taiga zone. I read extensively the work being done on taiga reindeer, dogs, and horses in a quest to understand the relationships between humans and the triad of reindeer-dog-horse.

I have always wanted to study Tyvan nomadic groups because they are understudied and my aim was to document their lifestyles. Taking classes at University of Alaska Fairbanks, I decided that I would like to focus on the Tozhu reindeer herder-hunters because they are a less studied community. Today, the Tozhu are easier to reach than 10 years ago, however, the community still remains remote in the republic and still little is known about reindeer herder-hunters even within the republic itself. After my first field trip, I realized that I was on the right path. Being Tyva myself, my background has helped me to pay attention to certain details in my research. For example, I grew up with fur simply because my family was in the fur business. My mother worked as a hunt manager and a fur evaluator for several years in the Kyzyl *gospromkhoz*

(state enterprise) in the capital before she changed her career. I grew up helping my mother sew hat linings, cut fur pelts, and match sable pieces of different pelts (quite a challenging task, considering pelt hues vary considerably). I observed how my grandmother and mother worked with pelts for long hours. Because of this experience, I know all types of fur in the Tyva Republic, the natural beauty of fur, differences of wild and farmed fur pelts, good quality and defective pelts, sable variations of colors and hues. In addition, I am familiar with what the fur fashion trends from the 1980s to the 2000s in southern Siberia. Sable as a commodity has been precious for centuries in Siberia, used as tax payment in the past, and still remains a valuable and important income for the Tozhu during the fall hunting season. The Tozhu are better described as taiga hunters working in cooperation with their reliable hunting partners, reindeer and dogs.

I want to specifically thank the members of my host families: Sayzana Kol, Andrey Baaran, Anoka Kol, Sergey Kyrganay, and Danil Kyrganay. I humbly thank many other individuals in the Tozhu district who shared with me their stories and assisted me in my journey. Thanks particularly to my adviser Patrick Plattet and my committee members, David Koester, Peter Schweitzer, and Michael Koskey, for being supportive and providing valuable comments. Because English is not my native language I am very grateful to my editor Riley Witte. In addition, the University of Alaska Fairbanks provided me with a teaching assistantship for four years, and the Open Society Foundations provided me with a Global Supplementary Grant for three years, which made the Ph.D. degree possible for me, the first Tyvan woman to complete a U.S. doctoral program. I definitely would not have been able to conduct my research without financial support. Generous funding came from several sources: a Travel Grant from the University of Alaska Fairbanks, a Global Change Student Research Grant from the University of Alaska Fairbanks Global Change Center, and Doctoral Dissertation Improvement Grant no. 1433651 from the National Science Foundation.

My mother and my daughter were always supportive. My daughter helped me with editing some digital pictures and drew the important illustrations “Wolves” and “Taigan” for my dissertation. My mother provided me with constant financial and emotional support. This dissertation is dedicated to taiga reindeer herder-hunters and their animal partners, whose lifestyle has not change much for the last several hundred years.

I hope you enjoy your reading.

Fairbanks, May 12, 2018

CHAPTER 1: INTRODUCTION

1.1 Research Topic

One of the most important ideas in this dissertation began forming during my first fieldwork trip in 2012, when I was staying with Tozhu reindeer herder-hunters in the taiga in the Republic of Tyva. To prepare for this trip, I had read every ethnographic account I could find about Tyva. I also read some remarkable literature on reindeer herding in Siberia by both Russian and Western scholars. However, discussion specifically of the Tozhu is scarce throughout academic works on taiga reindeer herding. After reading and synthesizing those articles and monographs, I became convinced that my initial research interest would be to study subsistence, the continuities and changes in taiga reindeer herding, and the contemporary social organization of reindeer herding in the post-Soviet era.

However, after making my first five-day trip to the alpine summer camp in the taiga on horseback in 2012, I realized that horses were also vitally significant to the Tozhu culture. Getting to the camp through dangerous, muddy, swampy, and mountainous taiga terrain was a challenge for both humans and horses. From my readings, I had understood that horses were unimportant animals compared to reindeer in the Tozhu culture. Although the Tozhu consider reindeer to have many advantages over horses, I found evidence that this belief was untrue, especially in the context of the past two decades, as herder-hunters have become more dependent on horses. Success in subsistence activities and mobility in the taiga is impossible without using a wide range of available forms of transportation. The Tozhu's success in hunting and reindeer herding revolves around their ability to utilize taiga resources with the aid of multiple animals such as reindeer, horses, and dogs.

Another theme of my research came together while I was doing fieldwork at a different reindeer herding camp in the summer of 2013. I was fortunate to stay with Sergey, a respected elder and the most prominent reindeer herder-hunter in the Serlig-Khem group. The camp was located a quarter of the way to the top of the Akademik Obruchev Range, where the summer days are hot and sunny. One day, Sergey returned from his successful big-game hunting expedition in the taiga, his three Laika dogs running ahead of him. At the camp, Sergey unloaded his reindeer. Bicheney, the leader of the dog pack, who had contributed most to the kill, patiently waited for food at her bowl. As soon as Sergey set the musk deer on the ground, two other dogs from the

pack, Shokar and Moynak—skinny, thievish, and excited to eat meat— came close to it, barking and sniffing at the deer. Danil, Sergey's son, tied the dogs to their spots to help them to stay calm and wait for their food. Then he came to the musk deer and carefully cut the deer's musk glands, the most precious and sought-after commodity in the taiga. Danil held the glands in his right hand trying to figure out their approximate weight. He thought that they weighed at least 20 mg, which fell into the average weight category (15-20 mg). He also considered how much money he could make selling the glands. He stretched them on small bush branches to dry. Then Sergey butchered the deer. He cut the deer's legs, divided them evenly, and gave them to his dogs.

Before this success, the family had not had any luck in the hunt for the past month. Danil went on hunting trips almost every single day, while Sergey hunted every two days. Knowing ungulate behavior, they scouted the trails in search of animals, but either did not encounter a wild animal or missed the target. Four weeks passed quickly. The dogs became skinny living only on *chem yt* (Tyvan dog food, flour boiled with water), and the two men became concerned about the wellbeing of their dogs. Typically, the Tozhu let their dogs roam in the taiga where they could hunt small game. However, Sergey's household was close to the gold mining of the Chinese mining companies. If the men let their dogs roam free, the troublemaker dog Bicheney would lead them to the gold mining company, to feast on leftovers from the cafeteria. They both feared that the dogs would go to the Chinese mining company, where they could be stolen or end up as food for the Chinese workers. Loss of the dogs would be catastrophic for the family because without sable and deer-hunting, they would have no income. Facing these challenges, the family decided that it was time to embark on longer big game hunting expeditions lasting several days. The first of these trips was unsuccessful.

For the next hunt, Sergey departed early in the morning from the camp with his three dogs. It was unusual to see him take all three dogs. My curiosity was aroused, but from my experience living in the taiga district Biy-Khem,[1] I knew that I should not ask any questions or comment on his hunt so as not to risk the hunter losing his good luck. After two days, Sergey came back in the late afternoon with his trophy, a musk deer. Having observed reindeer herder-hunters in two different camps, I learned that although there were some common traditions of the hunt, every herder-hunter possessed a particular unique story and set of strategies that led to his success. All

[1] Piy-Khem in Russian. I will use the Tyvan names for the districts because the Tyva use only Tyvan geographical names even when speaking in Russian.

the herder-hunters kept Laika hunting dogs, but the ways they hunted with the dogs varied. Sergey believed that using multiple Laika dogs of different genders was the best way to achieve consistent success in deer-hunting, particularly when chasing a musk deer. From his observations and life experience, he knew it was necessary to have at least one female and one male dog; this combination was the perfect for working the dogs together as a team. Inspired by what I observed of the hunting abilities of the Laika, I educated myself about Laika breeds and hunting dog breeds in general. As I probed more deeply into Laika breeds, I read about the development of dog husbandry in Russia and dog breed standards. I discovered the history of the Tyvan indigenous dog breeds. I began pondering when early taiga hunter-gatherers possibly domesticated dogs and what dogs meant to them, as well as to contemporary reindeer herder-hunters, and whether use of dogs might be related to reindeer domestication. Although all previous research had stressed the importance of dogs, only research on the importance of reindeer had been presented in earlier anthropological studies of the Tozhu reindeer herder-hunter, when in fact, they were actually dependent on multiple domestic animals for survival. Though my research was spurred by my interest in cynology,[2] I soon realized the classic anthropological question of the social organization of hunting and reindeer economies could be analyzed fruitfully from the perspective of human-animal relationships.

The Soviet ethnographic descriptions of traditional organization in taiga nomadic societies were constructed through research of the reindeer, and dismissive of the importance of dogs and horses. Although all research stressed the important role of dogs in the fall hunting, they often overlooked their crucial roles. Several ethnographic studies on taiga reindeer herder-hunters are good sources on hunting dogs in the taiga zone, particularly the works by Petri (1928b, 1930), Tugolukov (1969), and Oehler (2016). Vladilen Tugolukov (1969) gives an interesting account of the Laika (indigenous dog breed), used among the Evenki in Buraytia. Bernard Petri (1928a, 1928b, 1930) describes hunting dogs in detail, including their training and the hunting process among the Tofa in Tofalaria and the Tutur Evenki in the Irkutsk province. Recent studies clearly demonstrate that among groups who are principally dependent on subsistence in the taiga and for whom dogs are essential hunting partners, there is a consistency in the nature of human-animal relations (Davydov and Simonova 2008, Oehler 2016). The tendency to focus on research on reindeer leads to obscuring our understanding of the complexities of the relationships between

[2] Cynology is the study of the dog.

humans and nonhumans in the taiga environment and fails to give a complete picture of taiga societies. However, some anthropological studies of nomadic pastoral societies demonstrate a shift in theoretical orientation, which recognizes the need for an ethnography addressing interactions between humans and animals within particular socio-cultural structures (Fijn 2015, Nadasdy 2007, Stépanoff 2012, Oehler 2016). To develop this framework, I read extensively works focused on human-animal relations, including publications on the biological, behavioral, genetic features of reindeer, horses, and hunting dogs. This multispecies sociality offered new insights into an understudied aspect of the Tozhun contemporary way of life and added nuance to current understandings of Tozhun hunting and reindeer herding structures, challenges, and successes. This insight has become important to my understanding of the relationships between humans and nonhumans, which have become the primary subject of this dissertation. Before delving into the history and reconstruction of reindeer herding and hunting during the Soviet era, which is the subject of Chapter two, I will present a discussion of my field site and research methods that I used to gather the data, followed by my research questions and main argument.

1.2 Tozhu Fieldwork Site and Methods

The Tozhu *kozhuun* (district) is located in the northeastern corner of the Tyva Republic, in southeastern Siberia (the Russian Federation) (Figure 1 and 2). The district has two officially recognized names: Todzhinskiy *rayon* (district) in Russian, and Tozhu *kozhuun* (district) in Tyvan. It is also important to note that the republic itself has two official names: Tyva Republic (Tyvan version) and Tuva Republic (Russian version).[3] The Tozhu *kozhuun* is the largest district in the republic, making up to 26.2% of its territory. It covers an area of 44,800 square kilometers and is approximately twice the size of the state of New Jersey. The *kozhuun* is bordered by Krasnoyarsk and Irkutsk provinces to the north, the Republic of Buryatia to the east, Biy-Khem and Kyzyl *kozhuuns* to the west, and Kaa-Khem *kozhuun* to the south. This northeastern part of Tyva is characterized by mountainous terrain and highlands, and the whole area is divided by the Tozhu Depression. The district is surrounded by four mountain ranges: the Western Sayan (Ergek-Dyrchak Taiga) mountain range to the north, the Academic Obruchev range in the south, the Eastern Sayan (Udinskiy Mountain Range) in the north and northeast, and Prikhubsugul Mountain Range in the east. There are approximately 4,000 small and large lakes and numerous rivers in the

[3] From here on, I will use the name the Tyva Republic.

kozhuun, which make up 25% of all the rivers and 70% of all the lakes in the Tyvan republic. Biy-Khem (Yenisey) is the principal river; its tributaries begin on the slopes of the Eastern Sayan, Western Sayan, and Prikhubsugul Mountain ranges. The currents of these rivers are fast and the water is cold, as the small streams flowing into them begin high in the mountains. Tozhu's climate is typical of highland taiga, and is continental and moderately humid, although, depending on latitude, temperatures can vary. In general, winters are snowy with freezing cold temperatures; summers are short and rainy with no excessive heat[4] or humidity. The mountain area typically experiences frequent rain showers and thunderstorms in July and August. The rains are abundant in the Sayan Mountains, at altitudes of 1,400-2,000 meters, with precipitation ranging from 700 mm to 2,000 mm per year (Muranova 1973:66).

Figure 1. The Republic of Tyva in the Russian Federation. Source: Arakchaa (2014:62).

[4] Except for the two weeks in the beginning of July.

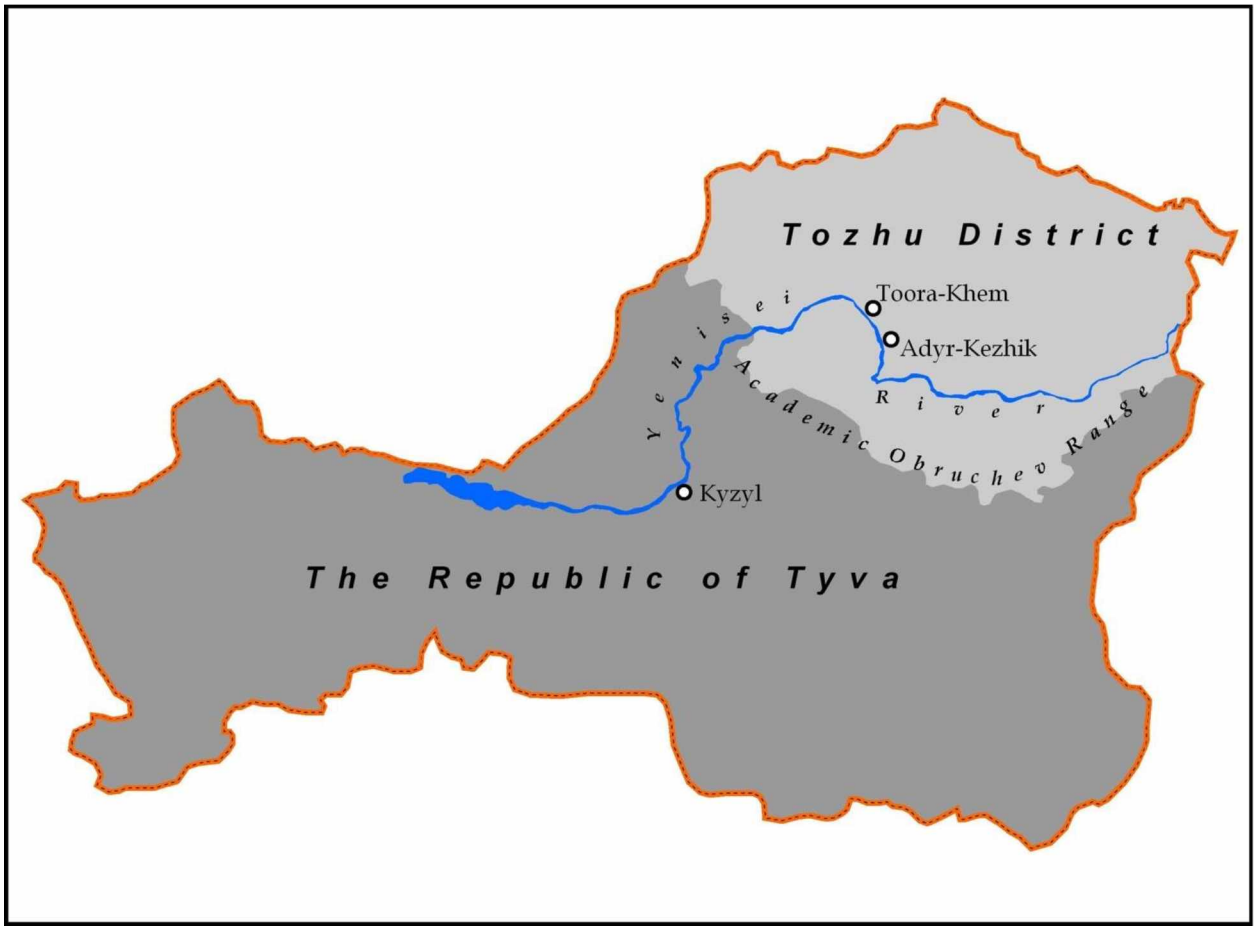

Figure 2. The Tozhu district and the Academic Obruchev Range in the Republic of Tyva. Source: Arakchaa (2014:62).

Snow arrives in October, with an average winter snow of 25-30 cm in the lowlands and reaching more than 100 cm in the highlands over the course of the whole winter. As highlands with relatively heavy precipitation, the district is often described as the Tyvan version of Switzerland.

Areas of highland taiga blend into high alpine forest tundra with alpine meadows and numerous streams, rivers, and lakes. In general, the taiga landscape is quite picturesque. The people of Tyva have a popular expression: "The one who has never seen Todja,[5] has never seen Tyva." The natural settings of the Tozhu *kozhuun* (in terms of mountainous relief, climate, hydrography, flora, and fauna) make it a unique place in southern Siberia with a wealth of natural resources. For the past five decades, the republic has organized protection of these natural rarities. The state preserve "Azas" was first included in protected areas in 1985. The 337,297 hectares of

[5] The Russian pronunciation of the name of the Tozhu district.

"Azas" protect the wildlife of the taiga forest. One of the main goals is to preserve Tyvan beavers[6] (*kundus, saryg kundus*), which are an endangered species. For the last fifteen years, the main threat to the beaver has been invasive species, particularly hybrids (European and Asian beavers, which were cross-bred in the 1950s) migrating from Krasnoyarsk province, the Republic of Khakasia, and Irkutsk province, to which Tyvan beavers are quite vulnerable. These new immigrants are more aggressive, robust, and prolific than Tyvan beavers and can out-compete them for resources (Gosudarstvennyy zapovednik "Azas" 2016).

According to Jack Weatherford (2010), in the 12th century, merchants crossed the Inner Asia region, leading caravans of camels and bringing merchandise to trade with local tribes. "The most valuable products of the north came not from domesticated animals, but from the wild animals: antelope hides, black and brown sable pelts, tiger and wolf skins, bear claws, and the horns of elk, reindeer, ibex, and wild sheep" (Weatherford 2010:46). Weatherford (2010) explains further:

> Most of these products lay beyond the Mongol steppe world; they came from animals of the distant Amur River in the northeast or the forests around Lake Baikal in the northwest. The Mongols called the northern area Sibr, which later became Siberia, and they referred to the tribes as the Oi-yin Irged,[7] the Forest People, eventually shortened to Oirat. (Weatherford 2010:46)

Weatherford (2010) states that, in 1207, the Mongols subdued the northern hunting tribes living in the wooded zone in order to have access to their precious animal products. Some of these northern neighbors were tribes residing in the taiga in the territory of Tyva. At least since the 12th century, the Tozhu area has functioned as the main supplier of animal pelts and hides in the territory of Tyva.

In 1838, Russians discovered placer gold at the Systyg-Khem River (Leonov 1927). Russian colonists established the first two gold mines, Spasskiy and Nikitinskiy (Mollerov and Mart-ool 2013). Gold mining started in 1925 at the Kharal River (Leonov 1927). Fur trade and gold mining played a key role in establishing Tozhu as a district. The administrative center of the district is Toraa-Khem, a village that started as a settlement built by Russian peasants at the end

[6] In the pre-Soviet era, the beaver was considered a sacred animal; killing the beaver was prohibited.
[7] I suggest these are the names of the Turkic tribes Oyun and Irgit/Irkut who lived in the territory of Tyva (although Irgit/Irkut also resided in the territory of the Irkutsk province). These tribes were among the thirty tribes who played an important role in the ethnogenesis of the Tyva. During the Soviet era, people from these tribes took their tribal names as their last names.

of the 18th century (Mollerov and Mart-ool 2013). According to data provided by the district administration in January 2016, the total population of the district was 6,428 people. The contemporary *kozhuun* includes six *sumons*[8] with six villages summarized in the following table (Table 1):

No.	Name of the *Sumon*	Administrative Center	Population as of 01/01/2014
1	Azas *sumon*	Adyr-Kezhig village	1,277
2	Iy *sumon*	Iy village	1,317
3	Systyg-Khem *sumon*	Systyg-Khem village	139
4	Toraa-Khem *sumon*	Toraa-Khem village	3,024
5	Chazylar *sumon*	Chazylary village	136
6	Yrban *sumon*	Yrban village	307

Table 1: *Sumons* in the Tozhu district

Until recently, Tozhu was one of the most remote districts of the republic with limited access. Since the old times, there were two dirt roads leading to the district: one through the Mün Pass and the second, the Khut-Turan Road, fording the Seyba and Systyg-Khem Rivers. According to Andrey Kolev, a former head of the Tozhu *Rayispolkom,*[9] horses and reindeer were used only to bring necessary goods such as flour, grains, salt, and spirits to the district. The first car arrived in Tozhu in 1955 (Angyrban 2006). Typically, people traveled to Tozhu by Russian truck—the Ural-4320—which was a reliable but challenging means of transportation. The truck was designed as an off-road vehicle and was perfectly suited to taiga dirt roads. Traveling from or to the district could take two days, if the roads were muddy.

Later, the district was accessible by helicopters and small planes such as the "An-2," known as the *kukuruznik.*[10] People had to fight to get air tickets in the airport (only twelve seats were available), and flight delays were commonplace due to frequent fog on the Tozhu side of the pass. The fog could last for several days before the pass would be clear enough for air travel. In summer, water transportation was more reliable and important than planes. Motorized ships revolutionized

[8] *Sumon* is an administrative unit of a district in Tyva, introduced by the Manchu in the 18th century.
[9] *Rayispolkom* is an abbreviation from *Rayonnyy ispolnitel'nyy komitet*, which literally translates as 'regional executive committee.' It was a district organ with executive power.
[10] *Kukuruznik* is a nickname formed from the Russian word '*kukuruza*', meaning corn. The nickname evolved because the An-2 airplane was extensively used for planting corn.

travel to and from Tozhu, because they could carry more people and goods to the remote northern corner of the Tyva Republic. The typical boat trip took around twelve hours. In 2007, the dirt Kyzyl-Boyarovka-Toora-Khem Road was built to Toora-Khem, producing a major change to district life. Currently, it usually takes about six hours to drive from the capital, Kyzyl, to Toraa-Khem. Despite the increase in accessibility, the *kozhuun* still has a small population.

I chose the Tozhu district as my main fieldwork site for a number of reasons. First of all, I was interested in the complexities of modern human-animal relationships among the Tozhu reindeer herder-hunters in the Tyva Republic—among people and their reindeer, horses, and dogs. The Tozhu district remains the only place in the republic where people breed reindeer, possessing a total of more than 1,000 reindeer total in 2016.[11] For this reason, the Tyvan government sees Tozhu reindeer herding as a potential resource for the development of northern reindeer herding or tundra-type reindeer herding in the future.[12] With the right type of management, this practice would not be a burden for the government and could become a flourishing part of agribusiness and meat-oriented production. The Tyvan officials assert that this is not only possible, but necessary to produce ecologically pure meat, free of antibiotics and toxins from free-range animals for local and distant markets. In the post-socialist context, the trajectory of reindeer herding has changed from big herds to smaller herds. This dissertation investigates the co-existence of humans and their animals in a post-socialist context, particularly as indigenous breeds of horses and dogs went through an intense period of crossbreeding.

In contrast to the nomadic life of the herder-hunters, the Tozhu district is also home to a vigorous mining industry. The first gold mine appeared in the middle of the 18th century with the influx of Russian settlers (Adamov 2007 [1926], Turchaninov 2009 [1915]). Later, other gold mines successfully operated in Tozhu during the Soviet era. The excavation of mineral resources has continued in the post-Soviet period. The Chinese mining company Lunsin, owned by Zijin Mining Group, won the license to develop polymetallic ore located 70 km from Toraa-Khem in 2006. The company promised to hire 250 local people and estimates that it will bring 400 million rubles in tax and duty revenue to the republic.

[11] People also breed reindeer in the Kaa-Khem, Kyzyl, and Tere-Khöl districts, but the number of reindeer is no greater than 100 reindeer in each district.

[12] The typical features of the tundra type are large herds ranging from several hundreds to thousands, long migrations of several hundred kilometers, and use of reindeer for sleds (Baskin 2009, Ingold 1980).

The Tozhu district also is a place where a new rail line will run through the pristine taiga, as part of the impending international project called, "Economic Corridor," linking Russia, Mongolia, and China. The Tyvan government asserts that the republic needs to modernize its infrastructure to fit the republic's needs for developing industry, but the people of Tozhu fear that wildlife and the nomadic life in the district will be sacrificed in order to achieve this goal. It is difficult to determine how disruptive the railroad project will be to their nomadic lifestyle. One young herder-hunter named Danil expressed his fear to me that the rail line would be a threat not only to the taiga, but also to reindeer and reindeer herders.

To develop my understanding of human-animal relations in Tozhu, I made four field trips to the Tyva Republic and spent about eight months living in reindeer herding camps, Adyr-Kezhig, and Kyzyl. I lived with the Tozhu reindeer herder-hunters in their camps for a total of three and a half months. Throughout my fieldwork I relied on participant observation as my primary data-gathering methodology. I stayed with two families of herder-hunters. Originally, I had planned to stay almost the entire time with reindeer herder-hunters, but I later realized that I needed additional data for the project. Staying in Adyr-Kezhig in June of 2015 gave me an opportunity to talk with and interview more people than would have been available in the taiga. I conducted semi-structured and unstructured interviews with current and former reindeer herders, villagers from Adyr-Kezhig and Toora-Khem (the majority of whom are family members of the reindeer herders), as well as government officials. However, I discovered that many of my interlocutors did not feel comfortable being recorded. They were shy, and their answers were short and incomplete. Moreover, when I asked for an interview, some people who had high positions, for instance, in the Tozhu administration were suspicious of me, fearing that I was trying to dig for information to use against them. Many simply thought that only untrustworthy journalists would conduct interviews. Thus, I changed my tactic and decided not to record the conversations in order to put my informants at ease.

It was highly important to me to supplement my study with archival research. School museums in Adyr-Kezhig and Toora-Khem proved to be useful resources. I discovered several newspaper articles about reindeer herding and hunting published during the Soviet era. Eventually, these newspaper articles helped me to understand the reconstruction of reindeer herding and hunting in the post-Soviet era. I also used an archive in Toraa-Khem and an archive in the Tyva Republic National Museum after Aldan-Maadyr. My goal in the Toraa-Khem archive was to find

any available information about the reindeer herder-hunters in relation to *kolkhozes* and *gospromkhozes* (Rus. state hunting enterprises) following the collapse of the Soviet Union. My project posed a special challenge because both *kolkhozes* (Rus. collective farms) and *gospromkhozes* no longer exist today. The archive was far less organized than might be hoped for an institutional archive; information about *kolkhozes* and *gospromkhozes* was completely missing. However, I was able to find household registration books of the Adyr-Kezhig village where there was information about reindeer herders' households and about private reindeer ownership. These books were a powerful tool for comparison between past and present. This valuable information helped me to understand the sociohistorical dynamics of reindeer herding from the collapse of the Soviet Union to the present. Another way to develop my project was to find old pictures with the aforementioned domesticated animals in the archive of the *Tyva Republic National Museum after Aldan-Maadyr*. Eventually, I even found pictures related to human-animal relations, my topic of interest.

Initially, I had planned to stay in two reindeer herding camps so that I could compare their social organization, human-animal relations, and herds. In August of 2012 and November-December of 2014, I stayed with a reindeer herding couple in the reindeer herding camp in the Serlig-Khem region. The couple, Sayzana Kol and Andrey Baraan from Adyr-Kezhig, were a perfect match for me because they liked to migrate farther in summer to explore as much of the taiga as possible. After five challenging days of horseback riding through slushy taiga, I reached the Academic Obruchev Mountains, where reindeer herder-hunters migrate to for the summer. In this cool, windy, and high-altitude camp (2,500 meters), the reindeer enjoyed luxurious pastures of alpine vegetation. Typically, reindeer herder-hunters stay in small canvas tents during the warm season. There was hardly enough room for four people in the tent, and I was a fifth person to squeeze in the cramped quarters where we slept.

The couple moved from their summer camp to their winter camp in the fall. Sayzana's winter camp was located in a small valley with a frozen stream in the hilly taiga, where the men could go hunt sable. As the sable population became scarce, the family migrated to a new place to continue hunting sable. Although Sayzana's winter cabin was roomy compared to other herder-hunters' log shacks (the family called it a *dvorets,* which, in Russian, means "palace"), it was hardly large enough for five people. Sayzana's *dvorets* was built with the help of their kin and neighbors before the hunting season in 2013. Andrey slept on the cold floor. I did not want to

inconvenience the family and disturb their harmony, so I did not stay long. During the hunting season, the taiga becomes the center of the domestic web, bringing in a certain number of male kin and friends who come for sable hunting and stay to be of help to the household. Each cabin is generally packed with people as a constant stream of kinfolk coming and going during this time.

While living with my hosts, I did daily chores such as fetching water from the creek, assisting Sayzana in cooking family meals, cooking food for the dogs, washing dishes and pots, and occasionally babysitting Sayzana's granddaughter when she was busy. Because of the gendered division of labor, I carried out the tasks expected of a younger female in the household. Although sharing residental space with my hosts, I could not ask as many questions as I anticipated because I did not want to annoy my companions with endless inquiries and comments. I realized quickly that talking too much is not appreciated in the taiga. Despite my good relationship with Sayzana, when I asked her questions about animals, hunting, and reindeer herding, she sometimes reluctantly replied: "I do not know." During the fall hunting season, the men were busy. At the end of the day, they were exhausted and talked only to each other about their hunting experiences and their dogs. Herder-hunters also prefer not to talk while moving through the taiga, as they need to be alert to any possible danger. When someone was in a mood to talk and seemed responsive to my questions, I used this opportunity to clarify aspects of daily life or to discuss a particular topic.

I also stayed in Sergey Kyrganay's summer camp in 2013. Sergey was considered a knowledgeable elder in the Serlig-Khem region. Sergey grew up in a reindeer herding family. During the Soviet era, he was a member of the collective farm and a reindeer herder. Later, he had different jobs including a job as a butcher in the slaughterhouse of the Kyzyl Meat Factory. One day, camels were brought to the slaughterhouse. Sergey raised his axe to slaughter a camel, but he saw that its tears were running. He felt so bad that he quit the job the same day, came back to his collective farm, and continued to work as a reindeer herder. After the collapse of the Soviet Union, he joined the municipal unitary reindeer herding enterprise, Odugen. By 2015, he owned 50 reindeer.

Sergey's father was the most powerful shaman in the district but was prohibited from performing rituals during the Soviet era. None of Sergey's family members inherited the shamanic gift. Sergey was known as a skillful and knowledgeable hunter and reindeer herder. Indeed, the elder knew about old beliefs and traditions, wild animal behavior, taiga environment, and reindeer herding and hunting. Other herder-hunters sometimes sought his advice about reindeer herding

and hunting issues. His summer camp was at a much lower elevation than Sayzana's camp. In addition, the camp was relatively close to the gold mining operations (four hours away riding a reindeer), which made reaching the village much easier. Sergey was a widower who lived with his 26-year-old son, Danil, as well as his 7-year-old great nephew, who was staying with them for the summer. Sometimes his elder son, Andrey, came to the camp. Andrey had moved to Kyzyl and married there. Sergey was interested in my research and wanted to help me to document the past and present life of herder-hunters.

From the beginning, Danil was quite skeptical about my research, and he did not want to be a part of it. He refused to give any interviews and asked me not to take photographs of him. It turned out that in 2012 a film crew had come to Sergey's encampment to shoot an ethnographic documentary film entitled "*Тува. Счастливые люди*" (The Russian translates to: Tuva. Happy People), supported by the Russian Geographic Society. Sergey and Danil were some of the key people in the film. Although Sergey was delighted to be a part of the documentary film story, Danil had some criticism of the title, objecting to their representation as "happy people" in the film. The crew gave them money to purchase a firearm as a gift, but it was not enough to purchase a firearm, so, later, the crew sent a large, poor-quality canvas tent. Danil was disappointed by the film crew, and since then, mistrusted any kind of outsider, including me. He told me that he did not want to be "famous" anymore and did not want his name to appear in any kind of silly publication or to be associated with any kind of 'academic fantasies.' He asked me not to take pictures of him. Later, when I talked to Sergey, Danil would forget that he did not want to be "famous," and often joined in our conversation expressing his opinions on the subject matter. I felt that with my handicapped Tyvan and Sergey's poor Russian, I was occasionally lost in the conversation, so I was glad when Danil joined in our discussions. His participation was really helpful because his Russian was much better than Sergey's, so he often acted as an interpreter. Danil had improved his Russian when he spent two years as a rocketeer in the Russian Army in the Far East, and he was very proud of his military service. As I spoke Russian with some borrowed Tyvan words or phrases, our "murky" conversation [13] could have sounded weird and possibly offensive to other Tyvan speakers. Sergey spoke in Tyvan, including some Russian words and phrases, and Danil switched back and forth,

[13] Meaning not pure Tyvan.

but the goal of our communication was reached, and we came to an understanding. At the end, Danil did not mind including his family in my dissertation.[14]

1.3 The Research Questions and Main Argument

The Tozhu, living in close relationship with a variety of animal species, offer us a unique view on human-animal relations and how humans can configure animal essence in the taiga environment. Tozhu hunting and reindeer herding practices have adapted to reindeer, horse, and dogs in order to fit humans' and animal species' needs. Moreover, herder-hunters and their animals are bound in mutual relations, in which humans and animals have reciprocally influenced each other. As Keith Dobney and Greger Larson (2006) stress:

> Often in domestication studies, the terms wild and domestic have been interpreted as complementaries and not as antonyms, despite the fact that 'wild' and 'domestic' represent the extremes of a process and not a simple dichotomy. (Dobney and Larson 2006:261)

The Tozhu distinguish wild from domestic animals, however, and recognize that their domestic animals cannot be easily recognized as strictly domestic or wild. Although these animals are integrated into the human sphere and labeled as domestic animals, they were never removed from their original habitat. For instance, reindeer and horses are allowed to roam freely in the pastures, and returning to the camps all on their own. Dogs also are often allowed to wander freely in the taiga where they hunt wild animals and return to their masters on their own. In short, the Tozhu have created a flexible proper balance of managing each animal in captivity and freedom.

The categories of "captivity" and "freedom" are central to our understanding of Tozhu hunting and reindeer herding practices. When it comes to hunting and herding, the other basic social concepts of "trust" and "domination," which are connected to "captivity" and "freedom," have become prominent in scholarship on human-animal relations. Although scholars working on the topic of "trust-domination" share the same core set of questions, these two categories are subjects of ongoing, invigorating debates. Tim Ingold (1994) explores "trust" and "domination" among hunter-gatherers and pastoralists, placing them into categories of two types of engagement with animals. Ingold suggests that the relations between hunters and wild animals are reciprocal

[14] This research followed the University of Alaska Fairbanks Institutional Review Board policy governing human subjects research (Protocol #344358-5, issued July 25, 2012).

relations based on trust. Thus, "a hunt that is successfully consummated with a kill is taken as proof of amicable relations between the hunter and the animal that has willingly allowed itself to be taken" (Ingold 1994:69). In contrast, human-animal relations in pastoralist cultures are founded on the principle of domination. Ingold's work is a stimulus to anthropological studies of those communities dependent for their subsistence on domestic or wild animals. His work also provides room to explore further theoretical implications. Some scholars challenge his theoretical framework, suggesting a need to rethink such basic concepts as "exchange," "personhood," "trust," and "domination" in the context of human-animal relations. These scholars point out the existence of a contradictory position of hunting in varied indigenous cultures, and that, in particular, concepts of "reciprocity," "trust," and "domination" can contradict each other (Brightman 1993, Knight 2012, Nadasdy 2007, Oma 2010). In his study of human-animal sociality, Paul Nadasdy describes a tension between negative dominance and positive reciprocity:

> Although hunters do indeed sometimes see themselves as engaged in a relationship of reciprocal exchange with their quarry, at other times these same hunters express beliefs and engage in practices that seem to deny such a relationship. (Nadasdy 2007:27)

The idea that animals give themselves to hunters as a type of reciprocal exchange is often noted in anthropological literature. The main part of this fascination is a romantic stereotype, viewing almost all hunting societies with existing human-animal relationships as practicing a form of metaphorical, reciprocal exchange.

Kristin Oma, exploring Scandinavian Bronze Age case studies, suggests an alternative model of how humans and animals have related to and interacted with each other. She argues that "the development from hunting to husbandry signified a shift from domination to trust" (Oma 2010:177). Thus, trust is a missing element during the hunt of wild animals: "Although the hunter might trust the animal, from the animal's viewpoint this trust is not reciprocated; the prey flees in the presence of humans and exhibits no trust" (Oma 2010:177). Alternatively, in pastoralist societies, human-animal relations are based on trust:

> The intimacy that is formed in the proximity between humans and domestic animals is highly dependent upon trust. Humans trust animals to be docile and cooperative, while animals trust humans to protect them, feed them and care for them. (Oma 2010:177)

John Knight (2012), drawing on biologist Robert Hinde's model of relations, argues that hunting provides minimal opportunities for developing a personal form of relationship; these are

usually developed within a human band or group. Because of the nature of the hunt, a hunted animal avoids encounters with the hunter:

> Encountering one another for the first time, hunter and hunted are literally strangers. What the hunt, as an event, simply does not allow is for the hunter to build up a "file" on the individual animal he happens to come across. (Knight 2012:340)

In the hunting setting, human-animal relations mean that the hunter gets to know prey animals only as a class of animals, and builds up general knowledge about animal behavior, as opposed to specific knowledge of any particular animal. The hunter's interests fundamentally conflict with the interests of the prey animal.

In the case of animals with which herder-hunters interact in the taiga, both principles, "trust" and "domination," can be observed, though the widespread idea that animals give themselves to humans is not shared among the Tozhu. During my fieldwork I expected to hear stories describing rituals or traditions for obtaining luck before the start of the hunting season, making offerings to taiga spirits (Tyv. *taiga eeziler*),[15] and conducting sanctification ceremonies performed by herder-hunters or shamans. To my disappointment, I did not hear such stories except for a brief description of a sanctification ceremony held by a Tozhu shamaness several years ago. When I asked Sayzana what they thought about taiga *eeziler* (spirits) and how they were to be treated, she told me that her family was too busy with hunting to think about them. Sayzana also stressed that if she and her kin would think about taiga *eeziler* all the time, they would not be able to hunt or live in the taiga. Although the Tozhu live in the taiga, they recognize it as a foreign and quite adversarial place for humans to live. In short, these hunters think of themselves as intruders, rather than residents of the taiga realm. The Tozhu relationship with spirits reflects a stratified society ruled by numerous powerful *eeziler*, in which humans have an inferior social status.

Social stratification characterized Tyvan society before it joined the USSR in 1944. This social stratification is also reflected in the Tozhu understanding of human-nonhuman relations. According to Svetlana Biche-ool (2007), before Tyva became a Russian protectorate in 1914, Tyvan society was composed of several social classes. The most important of these classes was the political economic elite, which was divided into segments: *noyons,*[16] including *lamas,*[17] and

[15] *Eeziler* is the plural form for *eezi* or "supernatural spirit" in Tyvan.
[16] A wealthy nomad, a ruler of a particular administrative unit.
[17] A Buddhist priest.

officials. The governing class was composed of the *khozhuun noyons*;[18] each surrounded by an administrative apparatus. The official political leader of the Tyvan society was the *ambyn-noyon*. This elite class accumulated wealth by imposing taxation on ordinary nomads and exploiting their labor. *Noyons* controlled eight percent of the best pasturelands, owned two-thirds of livestock, and sixty percent of the sheep and goats in Tyva (Biche-ool 2007). This hierarchical structure applies to the *eeziler*, and their hierarchies of the spirit world. The two ruling classes, *noyons* and *eeziler,* hold equivalent positions at the top of the hierarchy, and the taiga nonhuman society shares structural features with the human nomadic hierarchy. Much like the ruling class of *noyons*, *eeziler* have an elaborate status in the culture distinguishing them from other nonhuman and human members of the taiga society; they own wild animals and control all the wealth of the land. Each *eezi* owns a particular natural object: a lake, a pass, a river, a mountain, a valley, a pasture, a forest. Taiga *eeziler* are considered the most powerful. In fact, the higher the mountain, the more powerful its *eezi*.

How does the dominant nature of *eeziler* and resource-seeking behavior of Tozhu herder-hunters co-exist in the taiga environment? If humans truly have lower social status in the taiga, how do *eeziler* interact with the hunting Tozhu? Although *eeziler* are powerful and strong beings, they are not in a real position to compel herder-hunters to work or create wealth for them. Tozhu hunting success depends on cooperation and sharing behaviors derived from a strategy of using domestic animals. Together with their reindeer and dogs, herder-hunters enhance their hunting opportunities, and also expect *eeziler* to share resources. Reindeer, dogs, and horses have special status; they are domestic animals, but they are considered to be half-wild animals. Acknowledging interdependent animal autonomy, the Tozhu try to maintain this feature by properly balancing between their captivity and freedom. Additionally, captivity fluctuates seasonally depending on household needs.

It is important to stress that the Tozhu people's life has dramatically changed over the past eighty years, largely in response to sedentarization and collectivization imposed by the Soviet government. Many old practices regarding life in traditional dwellings, performing rituals, and maintaining food preferences have fallen into disuse. Today the Tozhu herder-hunters reside in sedentary villages where their families live in houses. Tozhu living in villages can rely on their extended kin nearby to look after and protect their interests. However, these recent changes have

[18] District *noyon* or *ukherida*.

had relatively little impact on ideas about human-animal relations. The Tozhu see a distinct separation between the sedentary villages and the taiga camps, and taiga mobile activities have greater prestige than urban activities in the village. In taiga settings, although herder-hunters are often neglected by *eeziler*, the humans still seek to make allies with nonhumans. People often count on the support of *eeziler* in hunting activities, although these supernatural beings are quite capricious. At the same time, taiga dwellers often fear all contact with *eeziler*. While reading ethnographic Tyvan literature, I noticed a number of stories or epics that described encounters with supernatural beings that had happy endings, particularly when *eeziler* give many wild animals to lucky hunters. However, from my own experience, hunters in the Biy-Khem district (a neighboring district to the Tozhu district with whom the Tozhu share similar hunting traditions) always expressed fear of meeting *eezi* or being punished by them. While I lived in and visited the Biy-Khem district (also in a taiga zone) I heard only stories about *eeziler* inflicting punishments including suffering and death. I also heard a story of one female Tozhu punished by a taiga *eezi* (this story is discussed in detail in Chapter 3: Human-*Tarandus* relationships among the Tozhu).

Both Tozhu and Tyva in Biy-Khem often think that contact with an *eezi* can bring punishments. This human-*eeziler* avoidance is associated with pressure on taiga resources, particularly pressure due to intense hunting. The Tozhu believe that the animals never give themselves willingly to human beings. In addition, herder-hunters realize they are a part of the food chain; which is why they never leave their camps without a firearm, even if they stay in the near vicinity. What should hunters do to overcome the power of supernatural beings in order to capture wild animals? The solution the Tozhu have found is to extend their hunting techniques by creating alliances with other sentient beings. The Tozhu are not just hunters; they are hunters working in cooperation with reindeer, dogs, and horses. They intrude into the taiga with these animals, and only with their aid can the Tozhu herder-hunters act as super predators, equivalent to apex predators such as wolves.

When I used the words "to kill an animal" in my conversations with Russian hunters in the villages, I was immediately corrected by them: "It is correct to say 'to obtain an animal' (Rus. *добывать зверя*)." Initially, I thought that they objected to the term "kill" because it implied violence toward an animal. When I was in Sergey's camp, he also corrected me: one says "to obtain an animal." It took me while to get used to saying "obtain" instead of "kill." Later I noticed that when Tozhu herder-hunters spoke in Russian, they also used this term. In addition, reading

Russian literature on hunting, I encountered the term "obtain." This term was ubiquitous in the Russian literature as well as among Russian and Tozhu hunters. I began to ponder why "obtain" stood for "to kill" ubiquitously, even across languages. In his study, Nadasdy (2011) explores the notion of the agricultural term "harvest" in the Kluane First Nation community in Canada. Both the Kluane and the wildlife biologists use this term, but it is structured by two different root metaphors. Euro-American wildlife managers view the Kluane, who hunt and fish, as pursuing similar activities to production of crops or domestication of animals. In the Tozhu case, the Tozhu and Russians performed similar hunting activities and the metaphor *добывать* served hunters well in communicating between two different worldviews. One of the meanings of the word "*dobyvat'*" is to get something with effort or by searching. This term exactly describes the hunting process; an especially challenging aspect of the hunt when a prey animal has sophisticated capacity for self-concealment. It is hardly surprising that the Tozhu easily accepted the new Russian term, although in Tyvan they use the word "*аңнаар* (to hunt).

In the Tozhu case, a successful hunt involves not only the obtaining of wildlife but also alliances with reliable hunting partners, humans and animals. For the Tozhu, who have spent all their lives in the saddle, reindeer symbolize the Tozhu nation, and the control of the reindeer, dogs, and horses parallels the control of the taiga. A herder-hunter that cannot master reindeer, dogs, or horses certainty cannot master unruly wild animals and cannot master his own family or clan. Thus, alliances with multiple animal species, in the context of domestication, can be understood as fluctuations of dominance and trust through captivity and freedom. For the Tozhu, dominance and trust are necessary means in the taming process and cannot be distinguished from domestication in general. The Tozhu might be said to transgress the borders of wild and domestic; balancing between these two categories by allowing animals to assist them in the best possible way.

Lestel (2006) advocates combining ethology and ethnography in order to develop an account of the complexity of relationships between humans and non-humans. Lestel et al. (2006) examine two disciplines in studying human-animal relationships in hybrid communities in which humans and animals live together in a shared environment: "Ethno-ethology recontextualizes the approach to modes of knowledge within the interactivity of human/non-human relations in order to identify the representations and other cultural phenomena humans use to interact with animals and the practices concomitant with these representations" (Lestel et al. 2006:173). This approach

also "seeks to describe and understand how humans and animals live together in hybrid communities sharing meaning, interests and affects, articulated around jointly negotiated significations" (Lestel et al. 2006:173). The authors stress the importance of understanding not only how humans use animals but also "how humans and animals live together in that society—the way they use each other is only one dimension among others — and what kind of sociability results from this living together" (Lestel et al. 2006:159). Lestel et al. interpret this "living together" as "shared complexity in interspecific associations," with understanding that "shared complexity" is "the phenomenon that characterizes interactions between natural or artificial and human or non-human organisms interacting with each other" (Lestel et al. 2006:160). These "hybrid associations" represent communities in which humans and animals have shared meaning and interests and everyone is involved in social interactions (Lestel et al. 2006).

My approach towards the human-animal relationships is similar to that of Lestel et al. (2006) and Natasha Fijn (2011), in that I consider herder-hunters and their animals as a "hybrid community" in which "agents who participate in a reciprocal, co-domestic relationship" share meanings, interests, and effects (Fijn 2011:36). The ethnography of the Tozhu demonstrates that human activities influenced animal behavior just as animals have influenced humans. Cohabitation between humans and multiple animals has led to a human-animal mutual reciprocal relationship.

The delicate balance between wild and domestic animals in the Tozhu taiga generates a number of questions in relation to tameness. If humans can move animals back and forth between categories of wild and domestic, then how does such movement affect each animal species, and consequentially what effect does this have on humans themselves? Subsequently, the question arises: how does this contextualize the relationships between the categories of trust and domination? The process of training animals is an important means of adjusting wild animals to a human environment and solidifies the means of communication between humans and animals. Thus, the social results of this process are vitally important.

An understanding of multiple-species animal agency in the taiga landscape offers an opportunity to rethink the paradigms of human-animal relations and agency. The main research question for this dissertation is as follows:

How do humans and animals cooperate and co-exist with each other in the taiga environment?

To answer this question, considering the material from my fieldwork, I developed three related questions:

a. *How are the relations of Tozhu herder-hunters with their reindeer, dogs, and horses best understood in terms of hunting and herding practices?*
b. *How do Tozhu reindeer herder-hunters articulate the functions and interrelationships of their tamed and domesticated animals in hunting and reindeer herding?*
c. *How has crossbreeding of dogs and of horses influenced human-animal relationships?*

The first question recognizes the effectiveness of interspecies collaboration and the relationships humans create in order to maximize hunting success with each species. The second question focuses on the role of animals in the household economy as well as social tensions and conflicts resulting from living closely together with animals. The final question recognizes the profound role the dominant culture plays in idolizing purebreds, giving low status to indigenous breeds, while promoting portrayals of indigenous breeds that intertwine with racial and socioeconomic prejudices. Forced crossbreeding reflects the dominant society's negative perception of herder-hunters' "primitive" way of life. The fieldwork material suggests that purebreds symbolize the high standards of the Slavic population and how indigenous breeds, or mutts, are identified with and related to indigenous groups.

1.4 Dissertation Structure

While this chapter introduces the main goals of the study, the main questions, and the fieldwork site, "Chapter 2: The Tozhu and Village Life" introduces the reader to the Tozhu people and daily life in Adyr-Kezhig village. The goal of the chapter is to explain how political, economic, and social changes have altered the Tozhu population over the past eighty years. While the Tozhu have the highest population growth rate in the Tyva Republic, they remain undercounted by officials. The chapter also includes a section on traveling the taiga realm while riding a horse, which serves as an introduction to how humans and animals travel collaboratively in a shared taiga environment. "Chapter 3: The Tozhu Reindeer Herding and Hunting" is concerned specifically with the transformation of reindeer herding and hunting during the Soviet era, as well as the post-Soviet barter-and-trade system that exists in reindeer herding camps. This chapter includes a description of women hunters, who also contribute to the household economy. These chapters are followed by the core of the dissertation, "Human-Animal Relations" which consists of three

chapters. Each chapter focuses on a particular animal: reindeer, dog, and horse. These sections about particular animals describe their physical attributes, behavior, valuable skills, and ways in which collaborations are made between humans and these animals. These chapters include aspects of history and folklore, exploring the meaning of the animal throughout the past and contemporary culture. At the center of these chapters are the herder-hunters and their animal partners, bound in mutual relations of influence, through which interspecies communication is achieved. In "Chapter 4: Human-*Tarandus* Relationships among the Tozhu," I focus on hunting and reindeer herding activities performed through close collaborative interactions between Tozhu reindeer herder-hunters and their reindeer. This chapter examines how humans enhance the position of the reindeer as reliable hunting companions through partial captivity and communicative techniques. "Chapter 5: The Best Hunting Partners" continues with a description of the intimacy of the hunt, and the relationships that evolve between humans and dogs. It recognizes the profound role of the Russian authorities in idolizing certain breeds, particularly the West Siberian Laika, while relegating the East Siberian Laika to an inferior status.

CHAPTER 2: THE TOZHU

2.1 The Tozhu

Given the limited pre-revolutionary data available on the Tozhu, I will rely on the work of the Soviet ethnographer and archeologist Sev'yan Vainshtein (1961), who brings together several sources to describe the formation of the Tozhu people. The first written evidence of the ancestors of the Tozhu people dates from 618 to 907 BC, when the Chinese chronicle "Tan-shu" makes mention of the Dubo tribes, living in the Eastern Sayan Mountains (Bichurin 1950). Tan-shu describes the Dubo as hunter-gatherers, fishers, horse-breeders, and excellent skiers. At the end of the 13th century and the beginning of 14th century, another writer, Rashid ad-Din, described the forest Uryankhats living in the Eastern Sayan Mountains and the Baikal region as good hunters and skiers. They raised mountain bulls, rams, and *jeyrans* (gazelle) (Rashid ad-Din 1952 [13th century] in Vainshtein 1961). Besides these early descriptions, there are few other ethnographic accounts of the Tozhu people by Russian and European explorers, government agents, historians, and teachers. Until the beginning of the 20th century, the remoteness of the area and mountains made reaching the northeastern corner of Tyva extremely challenging for outsiders, and even more so to the fringes of the taiga. Although they reached the neighboring provinces of Krasnoyarsk and Khakasia much earlier, Russians did not arrive in Tyva until the end of the 17th century. The first explorers crossed the Sayan Mountains into the taiga. It was a very difficult task, not only in terms of distance but because of the nature of the landscape and terrain: high mountains, swampy forest, numerous rivers, and particularly voracious mosquitoes. Southern Siberia presented a real challenge to the Russian and foreign explorers. On his way to Tyva in 1910, the English explorer Douglas Carruthers (Carruthers and Miller 1914) stressed that it took several days for a struggling caravan of horses to cross 50 miles in swampy taiga jungles on his way to Tyva. Although historical sources about the Tozhu and their ancestors are scant and occasionally inaccurate, they have valuable information about the early populations of the of the Sayan Mountains.

Recorded Tozhu history begins in the 18th century with documents describing the first encounters between Russian explorers and the Tozhu people. In 1727, the Kyakhta treaty set the boundary between the great colonial powers of Russia and Manchu-ruled China. Under this treaty, the territory of Tyva and its people were subjects of the Manchu Empire. The treaty did not clearly define the border between the Kyakhta and Shabindabaga River posts, which left the whole region

of present-day Tyva and northern Mongolia subject to neither side. Russia did not have an adequate map of the area and did not know its own actual borders at this time. Since 1838, Tyva had become a favored zone for settlement by Russians who easily crossed the border and organized the first gold mining industry there (Adamov 2007 [1926]). Pesterev, a Russian border patrol commissar who was charged with surveying and mapping the Sino-Russian border territories from 1772 to 1781, was the first Russian to encounter the Tozhu clans living on the remote fringe of the taiga (Pesterev 1793). The commissar briefly described the clans' location, their way of life, and the level of social inequality existing among the members of the clans. In 1858, another Russian explorer, Ivan Kryzhin, was sent by the Russian Geographic Society to explore the territory of the Uryankhayaskiy *Kray* (Uryankhay region). Kryzhin described the landscape, geographic features, and the people. In his text, Kryzhyn used the terms "Uryankhi" or "Uryankhay" to identify the local population and "Uryankhayskiy Kray" for the region, although the locals identified themselves as the "Tyva." He identified the Tozhu as Bey-Khem[19] Uryankhi, as they lived in the basin of Biy-Khem River. Kryzhin also mentioned that the Tozhu were referred to as the Soiots by their neighboring Tofa.[20] The explorer stated that the Tozhun clans, Ak-Djet, the Kara-Dodot, and the Khoeyek,[21] were reindeer herders and the Ak-Dodot and the Kara-Dodot clans were livestock breeders. He pointed out that the Uryankhay were under Chinese rule, and each person in the household had to pay three sables as their annual tax. Once a year, an Uryankhay ruler, or *Danain,* appointed by the Chinese government was responsible for collecting and delivering the sables to the Chinese authorities in Ulaysutay town (Schwartz and Tsvetkov 1864). The term Uryankhay/Uryankhi became the most popular label for the Tyva, including the Tozhu, in various reports and articles. This term was used by the neighboring peoples and Russians until the early Soviet period, when it was finally replaced by the Russian term *tuvintsy*.

Tozhu ethnography starts with Pëtr Ostrovskikh (1898), who was also sent by the Russian Geographical Society, in 1897. He traveled from Biy-Khem to the Todja lake.[22] Ostrovskikh published articles and reports describing the Tozhu, their traditions, religion, and way of life. Raykov, a school teacher from Khakasia, participated in Ostrovskikh's expedition and collected

[19] Biy-Khem is the correct term.
[20] The Tofa related people who live in the neighboring Irkutsk province.
[21] Khoyuk is the correct form.
[22] Todja is a Russian term for Tozhu.

material and cultural objects for the Minusinsk museum. Michael Raykov (1898) was the first traveler who described the Buddhist celebration of Maydar in the Tozhu district.

A revolutionary and ethnographer of Polish origin, Felix Kon, made several field trips to different parts of Tyva to learn about lifestyle, religion, and traditions in 1902-1903. He reached the northern corner and described the Tozhu, but his description is quite fragmented. In 1910, an English explorer named Douglas Carruthers took part in an expedition to the area of Central Asia and Outer Mongolia, which he called "Unknown Mongolia" (Carruthers and Miller 1914). Carruthers was pessimistic in regard to the future of the Tozhu people, predicting that they would soon be wiped out. The early texts, unlike modern studies, completely ignored the presence and importance of horses and dogs, instead mentioning only the Tozhu's use of reindeer. Carruthers is the first author, who mentioned, albeit briefly, the herder-hunters' use of dogs.

In 1915, a Norwegian expedition traveled through the Western Sayan Mountains. Ørjan Olsen (1915), a member of the Norwegian expedition, provided a more detailed description of the Tozhu reindeer herder-hunters than had previously been recorded, although some information was incorrect. In 2011, the Tyvan Institute for Research in the Humanities and Applied Social Sciences planned to publish a Russian translation of Olsen's book from Norwegian into Russian, but budget cuts forced a postponement of the publication.

According to Nikolay Mollerov (2014), in 1914, Tyva became a protectorate of the Russian Empire because some Tyvan elites perceived European protection as a gentler option than the brutality of Chinese colonization. The Russian government put much effort to further explore the region. In 1915, the Russian Geographic Society sent an expedition to study the geography, nature, and people of the Uryankhayskiy Kray. An ethnographer from Krasnoyarsk named Vladimir Ermolaev joined the expedition and recorded important information about the Tozhu and Russian colonizers who settled in the Tozhu territory (Davaa 2011). Russian agronomist Alexey Turchaninov (2009 [1915]) provides an interesting account of the Tozhu, Russian colonizers, hunting *artels*,[23] and gold mining industry in the region. His information about hunting *artels*, the fur trade, and hunting dogs is quite valuable.

It would be nearly impossible to understand reindeer herding in Siberia without reading Soviet scholarship on the subject. In 1921, Tyva became the independent People's Republic of Tannu Tuva, and the Tuvan government was assigned the mission of changing the republic's way

[23] *Artel* is a cooperative association of peasants or workers.

of life. Soviet scholars intensified their scientific explorations. The Soviet government, trying to come to terms with the immense ethnic diversity of their newly formed state, strongly encouraged ethnographers to study Siberian indigenous peoples, focusing on the "backward nomads" as research subjects, who were judged to have come from a "dark past" and to be in need of "civilizing." The Soviets also organized ethnographic institutions in Siberia, which began to produce scholarly works on Siberian indigenous peoples. From about 1930 to the late 1980s, many parts of Siberia were closed to foreigners, particularly Western scholars. Soviet scholars established a "virtual monopoly on Siberian field sites" (Gray et al. 2003:194), therefore, theoretical approaches and methodologies pursued in the area differed greatly from typical Western scholarship.

In 1926, Maxim Levin studied the Tyva and the Tozhu living in the Odugen Taiga, and although his material was not published, it was later used by Vainshtein (1961). In the 1950s, Ekaterina Prokof'eva (1954, 2011 [1957]) was the first Soviet ethnographer to intensively study the Tyva and the Tozhu. Unfortunately, politics, a struggle over hierarchal status, and unhealthy competition within academia stopped publication of her 1957 monograph; it was only published in 2011 (Prokof'eva 2011 [1957]). Prior to the publication of her work, no published account included information about the role of Tozhu women in hunting. The Tozhu nomads were generally understood only in terms of men's activities and the customary gender division of labor. Prokof'eva's study still remains the only work that recognizes that a full understanding of Tozhu reindeer herding, and hunting is impossible without also understanding women's roles and actions.

Sev'yan Vainshtein played an important role in establishing ethnography in the Tyva Republic. He has been respectfully called the "Father of Tyvan Ethnography," and he is considered the most distinguished specialist on both the Tozhu and Tyvan cultures. For about three decades, Vainshtein conducted a number of field studies, collecting in-depth data on the Tozhu and the Tyva, and producing numerous scholarly works. His main focus was on the Tozhu people, particularly reindeer herding and hunting (Vainshtein 1961, 1968, 1970, 1971, 1980a, 1980b, 2009). He contributed a great deal to our understanding of the history of domestication and the Sayan type of reindeer herding. Vainshtein's monograph (1961) still remains the first and last extensive research on the Tozhu by a Russian scholar. In his monograph, Vainshtein describes the hunting techniques and strategies that the Tozhu developed. In most cases, my work supports his

research findings, which enables me to present a more complete picture of the modern ethnographic background of the Tozhu.

A Tyvan historian, Ekaterina Davaa (2005, 2011, 2015), studied the transformation of Tozhu society from 1914 to the post-Soviet era. Davaa's study illustrates that collective farms, with their intensive land and herd management strategies introduced by the Soviet planners, had both positive and negative effects on reindeer herding practice. Besides Ekaterina Davaa, Svetlana Biche-ool and Ayana Samdan (2012), Ch. Kyzyl-ool (1971) also published studies. In addition, linguists have studied the Tozhun dialect of Tyvan and analyzed its distinct features (Aragachi 1960, 1961; Artsybasheva 1935; Chadamba 1974; Sat 1987, Suvandii 2013). However, the Tozhu reindeer herder-hunters remain in general an understudied subgroup of Siberian indigenous people in the taiga zone. A contemporary analysis of the meaning of the co-existence of humans and animals in a shared taiga environment has not previously been completed.

Modern western research on the Tozhu is represented by scholars such as Brian Donahoe (2003, 2004, 2012) and Charles Stépanoff (2011, 2012, 2017). Donahoe (2004) was the first scholar who addressed the problems of property relations in his comparative study of changes and continuity among two related peoples, the Tozhu and the Tofa. By employing institutional analyses, the study explained the varying degree of land and animal property rights and reasons the post-Soviet development policy failed in those societies. Donahoe (2012) developed the idea of looking at property relations through more complex human-animal relations among the Tozhu reindeer herder-hunters. Both human-to-human relationships and human-to-non-human relationships were based on trust rather than domination, and these relationships can influence one another. The Tozhu kept their reciprocal relationships based on trust between their spirit-masters and reindeer, while the Tofa used to base their relationships on trust but stopped because of Soviet interference. Stépanoff (2012) was the first anthropologist to apply a joint commitment approach in his study of human-animal relations among the Tozhu. He stressed that their attitude toward reindeer was based on "respect of autonomy" and "trust."

While there is relatively little research on the Tozhu among academic works on taiga reindeer herding (Brandišauskas 2017, Pavlinskaya 2012, Petri 1927, 1928a, 1928b, 1930, Pomishin and Atutov 1999, Rassadin 2005, 2012, 2017; Shirokogoroff 1933, Tugolukov 1969, Vainshtein 1961, 1971, 1980a, 1980b, 2009), all these above-mentioned works helped shape my understanding of the past and present of the Tozhu culture and have been influential in forming

my interpretation of human-animal relations and the contemporary organization of hunting and reindeer herding.

Today Tyva is officially home to two native groups of people, the Tyva and the Tozhu. Before 1991, they were considered the same ethnicity—the Tyva—as they both spoke the Tyvan language, which is a part of Altaic language family. The Tozhu speak Tyvan as their first language. People in the villages speak in Russian with a heavy Tyvan accent except for those in Toraa-Khem (which has a large Russian population). Moreover, most young children and old people are not fluent in Russian.

The Tozhu stand out from other Tyva when it comes to their history, language, and geography. Although the Tozhu speak Tyvan, they use their particular Tozhun dialect, which is distinct from other dialects and includes a range of words with different origins and rich vocabulary for the names for animals, birds, and animal anatomies that are not found in other dialects. In his theory concerning of the ethnogenesis of the Tozhu, Vainshtein posits that they are descendants of the Samoyed, Tungus, Ket, Mongolian, and Turkic-speaking peoples (Vainshtein 1961). However, it is generally accepted that the clans of Eastern Tyva are the following: Khaasut, Kezek-Maady, Kara-Dodut, Dargan, Soyan, Kara-Soyan, Kezek-Kuular, Kyshtag, Urat, Dargalar, Demchi, Kara-Balykchy, Choodu, Khoyyuk. Of these, the clans of Khaasut and Khoyyuk were of Samoyed origin (Aranchyn 2001:307).

Mongush Mannay-ool (2004), a prolific Tyvan ethnographer and archeologist, generally accepts Vainshtein's theory of Tozhun ethnogenesis but does not agree on some points, such as the origin of the popular Choodu ethnonym, which can be found among the Tozhu, Tofa, Altay, Khakas, and Shor. Vainshtein (1961) states, without proof, that the Choodu and Kara-Choodu clans are Samoyedic groups and that in the beginning of the 2nd century BC, they became Turkic speaking. Mannay-ool leaves open the question of the origin of the Choodu ethnonym, mentioning that it includes northern and southern elements, and that establishing the origins with absolute certainty requires further research.

Mannay-ool (2004) doubts the Tungus component of the Tozhu's ancestors and argues that the ancient Turkic groups could have borrowed some words from the ancestors of Tungus. At this point, Vainshtein's argument lacks depth, in that such a conclusion, based on a few similar words, is highly speculative. Moreover, some toponyms in the Tozhu district are Turkic, but without Tungusic origin. For instance, the name of the Kantegir river on the Western Sayan Mountains

sounds similar to the Tungus ethnonym Kantegir. According to Mannay-ool (2004), Kantegir is of Turkic origin: *khan* (*khaan)* means a *kagan* (kingdom) and *tegir* means *tengri*, the sky.

Rassadin (1969) argues that the "Turkization" of the ancient Ket tribes under the Orkhon Turks and Uighurs began when they joined the Sayan Samoyeds and began to spread the Turkic language. As a result, the Tofa became Turkic-speaking in the era of the Ancient Turks, from the 6^{th}-8^{th} centuries. Rassadin emphasizes Samoyedic elements in the formation of the Tofa tribes. However, the local Tyvan scholarly community supports Vainshtein's theory of ethnogenesis, with some critiques of Mannay-ool's model.

Although some scholars do not agree with Mannay-ool's model of Tyvan ethnogenesis, particularly regarding the formation of some clans, nobody dares openly challenge the famous Tyvan archeologist and ethnographer. While the interpretation of the origin of certain Tyvan ethnonyms and toponyms is unquestionably a stimulus to linguistic studies for local and Inner Asian scholars, the data poses difficulties that cannot be accounted for by one theory alone. Another problem with the theory of ethnogenesis mentioned by other scholars is that recorded resources about the archaic hunters living in the taiga region are scarce. Any interpretation should be approached with great caution, and more research in the future should be undertaken.

It is important to note that the Tozhu share common ancestry with the Dukha, Tofa, and Soiot, but all these ethnic groups were divided by historical events into separate groups living in different locations in Russia and Mongolia (Figure 3) (Donahoe 2004, Pavlinskaya 2003, Rassadin 2012, Wheeler 2000). The Tozhu live in the Todzhinskiy *kozhuun* (district) in the Tyva Republic; the Tofa in Nizhneudinskiy *rayon* (district), and the Soiot in Okinskiy *rayon* in Republic of Buryatia, and the Dukha reside in Khövsgöl *aimag* (district) in Mongolia. Even though they all share the same lineages or clans, "these groups would not have identified themselves as a single ethnic group" (Donahoe 2004:64). In addition, these four groups are not as well documented compared to other reindeer herding peoples. Although the Tozhu make up the largest group, for the last two decades, the Dukha have received more attention from international scholars, reporters, and tourists, and have become the most well documented people out of these four. The mass media has promoted a romantic stereotype, complete with stunning pictures and descriptions of the Dukha as mystical Tsaatan reindeer herders, practicing boundless hospitality with a welcoming spirit (Inamura 2005, Møller 2015).

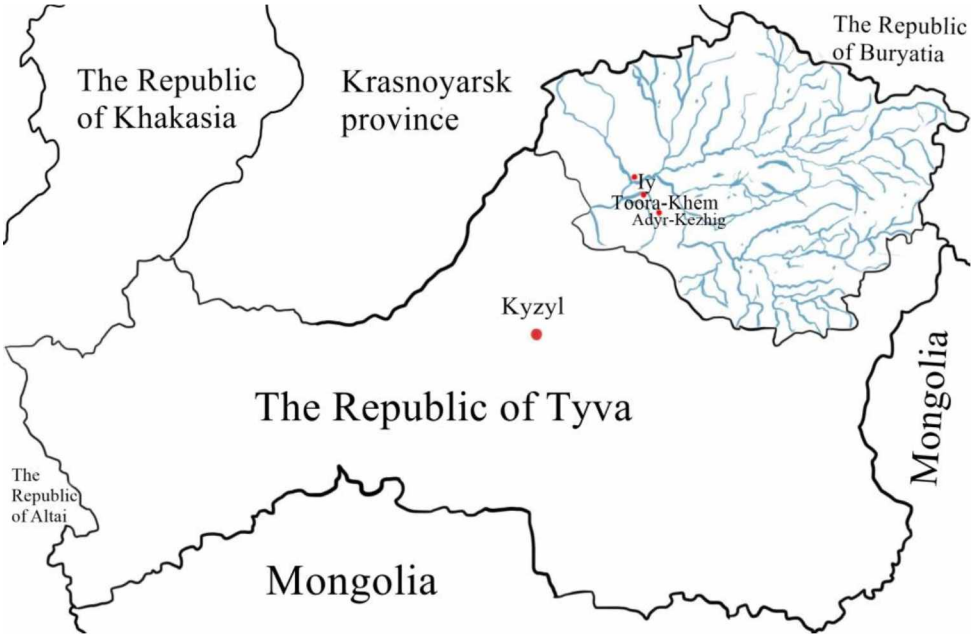

Figure 3. The Tyva Republic.

However, the Dukha are not a new community in the territory of Mongolia. According to Mannay-ool (1995), the Khövsgöl *aimag* was part of Tyvan territory and was called Khasut *khoshun* (district):[24]

> Mongols, not Tyva, were assigned as the *noyons* (rulers) of this *khoshun*. In 1878, the *noyons* were granted a special stamp from the Ulyasutay general-governor. Since then, this *khoshun* split from Tyva and was instead ruled by the Tsin Dynasty in Ulaysutay, later becoming part of northern Mongolia. The Tyvan Constituent *Khural* (Assembly) on the 13th -16th August of 1921, declared the formation of the Tuvan People's Republic, promising "to eliminate the Khasut *khoshun* from Tannu-Tuva. (Mannay-ool 1995:57)

Thus, the Tozhu people were divided into two parts by the administrative border of two countries; the Tannu-Tuva People's Republic as well as Mongolia. The Tozhu residing on the Mongolian side were known by multiple names within Mongolia. In 1935, the newspaper Ünen referred to the Tozhu by a Mongolian word, *tsaatan,* which means "those who have reindeer" (Badamkhatan 1996 in Wheeler 2000). Otto Farkas (1992) points out that the Tozhu on the Mongolian side were recognized by this name without any reference to their heritage: "While the word *tsaatan* actually signifies the profession of only those Dukha in the taiga, in Mongolia the

[24] *Khoshun* is an old pronunciation of *khozhuun.*

term has basically become the label for the ethnic group altogether, including those who have never kept reindeer" (cited in Wheeler 2000:8). According to Ragagnin (2006), the Dukha actually consider the term derogatory.

After Tyva was annexed by the USSR, some Tozhu, fleeing the upheaval of Soviet collectivization, moved into Mongolian territory and disappeared in the taiga of the Khövsgöl *aimag*. Since then, under Darkhat-Mongolian influence, their language has developed into the Dukhan dialect of the Tyvan language (Ragagnin 2006). Today, about 500 Dukha live in the Tsagaanuur district of the Khövsgöl *aimag* (Møller 2015). As for the Tozhu, who went through the process of Sovietization, their language was heavily influenced by Russian. As a result of their various experiences under the Soviet Union, they speak a specifically Tozhun dialect in the Tozhu district (Rus. *Todzhinskiy dialekt*) (Chadamba 1974) and the Tere-Khölan dialect (Rus. *Tere-Kholskiy dialekt*) in the Tere-Khöl district (Seren 2006).

Confusion in the English language literature requires some clarification of the term "Dukha." Mannay-ool (2004) states that the ethnonym "Tyva" had several cognates such as Tuva, Tufa, Tuma, and Tukha. Chinese sources from the Wei Dynasty (the 5th century AD) and Tang Dynasty (the 7th-10th century AD) documented one cognate for the term "Tyva," which originated from the name of the Dubo tribes who lived in the eastern part of Tyva and whose territory bordered Kosogol Lake (Bichurin 1950, Vainshtein 1961); "Turkic-speaking Tuba,[25] ethnically related to the Uyghur, came to the territory of the Sayan Mountains before the first century BC and adjusted their livelihood strategies to new conditions living among the Samoeyd and the Ket peoples" (Vainshtein 1980b:86). The Tyvan population began to use the ethnonym Tyva starting in the 18th century, into the beginning of the 19th century. According to Gavriil Ksenofontov (1937 in Mannay-oll 2004), both *tuba* and *yysh* are synonyms with the same meaning: "taiga," "black forest," or "mountains" covered by forest. Vasiliy Radlov (1929), a famous linguist-turkologist, who visited the western part of Tyva in 1861, pointed out that the population themselves used the term "Tuba." Ksenofontov (1937) emphasizes that *Tyva kizhi* in Tyvan as well as *Tyy kisite* in Sakha (Yakutian) mean "mountain man," a connection which is generally accepted by scholars. According to the Tyvan linguist Polina Seren (2016, e-mail message to author, September 28, 2016), the Tozhu people in the Tozhu and Tere-Khol districts still use the ethnonym "Tukha" or

[25] Tuba is a cognate of Dubo.

"Tukha *kizhi"* (Tukha man), which in general means "Tyva." Also, the more common pronunciation is "Tukha" rather than "Dukha," since the initial letter "d" is pronounced as "t" in the Tyvan language. Remarkably enough, I never heard my Tozhu informants refer to themselves as "Tukha." Instead, they usually referred to themselves as "Tyva." It is probable, however, that the older generation still would use "Tukha." However, "Dukha" is a cognate of the "Tyva" ethnonym, and the Dukha who refer to themselves as the "Dukha" consider themselves Tyva (Seren, e-mail message to author, September 28, 2016).

According to Møller (2015), after the declaration of the Mongolian People's Republic in 1924, a formal border first divided the Tozhu people one from the other. However, they were able to move freely from their traditional pastures on the Tyvan and Mongolian sides until the 1940s (Wheeler 2000). After the administrative border of the two countries was formally declared, it divided the Tozhu people in a concrete way. Old informants recounted that their families once had the freedom to go back and forth on both sides. After the border gates of the USSR and Mongolia closed, children who had been left in the Tozhu district while their parents were in Khövsgöl were unable to reunite with their families. As a result, close familial ties were cut and exchange of animals ceased. In the early 1990s, with the fall of communism in Mongolia and the collapse of the Soviet Union in Russia, the border gates were opened again, and Dukha with immediate family on the Tyvan side were once again able to visit. The Mongolian and Tyvan governments managed to reach an agreement on exchanging animals. Mongolia asked for reindeer in exchange for horses. The Tyvan government agreed to this exchange; however, the Tozhu viewed it as an unfair exchange as they also wanted a new gene pool for their reindeer stock.

It should be noted that Mongolia had a consulate in Kyzyl until 1944, when Tyva was annexed to the USSR. Mongolia officially reopened its consulate in Kyzyl in 1994, which gave rise to a new economic opportunity for Mongolia. Because of the natural proximity of Mongolia and Russia, Mongolia depends heavily on various Russian imported goods such as flour, sugar, pasta, cookies, refined petroleum products, and other goods, which are still considered to be of high quality. For the last several years, Russian officials, recognizing the importance of the "Mongolia-Russia economic corridor," have cooperated on deepening the trade links between Mongolia and Russia, focusing on the Tyva Republic, the Republic of Buryatia, the Republic of Khakasia, and Krasnoyarsk Province.

Since 2014, China has joined in discussions of possible long-term economic projects amongst Russia, Mongolia, and China. The new trilateral agreement involves improving roads and building the railroad through Tyva, linking to Mongolia and China. This railroad project is often described as a new version of the Silk Road and was given the name "A Window to Asia." Russian officials predict that the railroad will result in a rapid upgrade to the infrastructure, the power sector, and the mining industry in all three countries, and create ten thousand jobs on the Russian side. In 2008, the Russian government approved a proposed 98-billion-ruble railroad, which will bypass Kuragino village[26] on the Krasnoyarsk route to the Tyva Republic and will provide faster freight shipping for the developing Tyvan mining industry. The Kuragino-Kyzyl-Elegest railroad will go directly through the pristine taiga of the Tozhu district. The majority of the Tyvan population protested against this 411-kilometer project. The Tyvan government, concerned only with its economic prosperity, promoted the railroad as necessary for the development of the Republic's infrastructure. Meanwhile, railroad construction has already begun, but poor investment has slowed the pace of construction. However, it will eventually be completed. Many Tozhu fear that the railroad will destroy their current way of life, environment, and wildlife. They have to admit that they will eventually lose their taiga environment and lands. Regardless, the construction of a railway will bring new challenges: not only environmental damage to the taiga, but also a complete disruption of their nomadic livelihood and culture.

The Mongolian consulate in the Tyva Republic is beneficial because residents can apply for a Mongolian visa following a simplified procedure. Russian citizens are allowed to cross the Republic's southern border at Khandagayty village.[27] Although some ties between the two countries have been restored, the neighboring reindeer herder-hunters remain separated by an international border. To legally cross, they need to go to the Republic's capital to apply for an International passport and Mongolian visa, pay the fees, and then wait for issuance of the passport and visa. This is a time-consuming and expensive procedure for herder-hunters, who do not have a stable income. The possibility of exchanging reindeer, meeting relatives and conversing with them remains a dream for the reindeer herder-hunters. In July of 2015, a delegation of the Mongolian Tyva came to the Republic. Among them were some Dukha who visited Toraa-Khem and bought twenty reindeer there. Because of reindeer inbreeding, the Dukha were in dire need of

[26] This big village is situated in the Krasnoyarsk province.
[27] Foreigners are now allowed to enter Mongolia through his post.

a new gene pool for their stock. However, recent changes, particularly in 2018, have eliminated the requirement for Russian citizens to have a visa to enter Mongolia (for stays of up to 30 days).

In neighboring Tofa, the situation in terms of relations with Tozhu is different. The Tozhu traded prized commodities such as reindeer, horses, and dogs, as well as manufactured goods, for centuries. Some informants recounted that the Tofa sometimes took wives from Tozhun families. The Tofa were known by a different name, Karagas (Rus. *Karagasy*), before the Russian Revolution of 1917, and Shtubendorf (1854) was the first to point out that their ethnonym was the Tofa. Today the Tofa are also recognized as an indigenous people of the North, Siberia, and Far East. The Tozhu stated that they have lost connection with the Tofa over the last decade because they do not see them on their pastures anymore, and no one from the Tofa comes to the Tozhun camps to exchange animals. They had assumed that the Tofan nomadic life had already been destroyed.

The Soiot remains the most understudied group of people among the taiga reindeer herders. The Chinese-Russian border, established in 1727, separated the Soiot from the Tozhu and Dukha. Seeking pastures for their livestock, Mongolian tribes such as the Buryat and Khondogor began to come into the Soiot territory. Their influx was so great that the Mongolian tribes vastly outnumbered the Soiot and became powerful in this region (Zhukovskaya 1994). By the end of the 18th century, under the influence of these Mongolian tribes the Soiot gradually switched from Soiot to the Buryat language (Petri 1927). Because the Buryat and Khondogor used different pastures for their herd animals, hostilities between them and the Soiot were uncommon. During the Soviet era, one Buryatian policy resulted in a near tragedy for the Soiot. According to Pavlinskaya (2003), in 1940, the government recognized the Soiot as the Buryat. In 1963, on the grounds that the practice was unprofitable, the Republic of Buryatia banned reindeer herding. The ban resulted in great destruction and cultural loss for the Soiot population (Pomishin and Atutov 1999, Zhukovskaya 1994). After the ban had been in place for fifty years, the Soiot returned to their cultural roots and restored the reindeer herding practice (Pavlinskaya 2003, Rassadin 2012). Alexander Oehler (2016) points out that the Soiot faced a severe challenge relearning a "reindeer perspective of the landscape" (154):

> One of the chief reasons for the failure of a broader adoption of reindeer herding among Soiots of the 21st century may have been the difficulty involved in switching back and forth between reindeer and yak/cattle affordance niches. (Oehler 2016:153)

According to Vladimir Etylin, a founder and member of the Union of Reindeer Herders of Russia, the Soiot had about sixty reindeer in 2016 (personal communication, March 11, 2016). The Union of Reindeer Herders of Russia works closely with reindeer herders and provincial administrations. The Union's primary goal is to promote and develop reindeer herding in Russia, and its members have already visited the Soiot, Tozhu, and Tofa, both in 2015 and 2016, to help to preserve the number of reindeer in the communities.

When I arrived in the Tozhu district to start my fieldwork, I already knew how important the village was for reindeer herder-hunters. Originally from the Tyva Republic and having lived in Turan, a small town in Piy-Khem *kozhuun*[28] for one year, I was familiar with the concept of the *zakon taigi* (law of the taiga), but only through my fieldwork was I able to understand fully what this term means among the reindeer herder-hunters. To understand how herder-hunter life is organized, I had to do more than explain their migration seasons and reindeer herding and hunting practices in the context of the taiga ecosystem; this traditional life disappeared a long time ago. Tozhun life today is closely connected mostly to two villages: Adyr-Kezhig and Toraa-Khem. These two villages are embedded in a complex network of movement, kin, trade, exchange, administration, school, and financial support. Likewise, it is practically impossible to separate life in the camps from life in the villages. The reindeer herder-hunters think of Adyr-Kezhig as the home where they have families and houses. According to the data provided by the district administration, the population of Adyr-Kezhig in January 2016 was 1,349. The administrative center of Toraa-Khem has a reindeer herding enterprise Odugen, which provides financial support in the form of subsidies from the Tyvan government. Both villages are connected by a nine-kilometer dirt road.

The Tozhu experienced dramatic cultural change over the last century. The changes were rapid during the thorough transformation of reindeer herding and hunting economies that took place from the 1930s through the 1980s. In becoming non-nomadic, the Tozhu joined the Soviet agricultural infrastructure. During this period, the district, in addition to fur trade and reindeer herding, was opened to extensive timber and gold mining exploration and exploitation. This development brought an influx of nonindigenous peoples to the villages. In Chapter 3: *Tozhu Reindeer Herding and Hunting*, which focuses on reindeer herding and hunting during the Soviet

[28] Neighboring district to the Tozhu district and it is also located in the taiga zone and the majority of traditions are similar to the Tozhu.

and post-Soviet eras, I will go into more detail on the Adyr-Kezhig village settlement and the cultural transformation it has seen.

Today, only a few herder-hunters live permanently in the taiga. Others herd reindeer on a family system of rotational shifts. These shifts are not fixed and can rotate over several months. People have to come back to the village to tend to family affairs, children, and elderly parents who are still there. Their stays can last from a few days to several months, depending on how much needs to be done in the household and how many family members or kin stay in the camp.

The economy of the district is built around mining of minerals, wood cutting, and berry and pinecone gathering. The largest part of the district's industrial production is mining of minerals, which is run by the Chinese mining company, Lusin. The company has leased a large plot of land for a period of 100 years. Northern reindeer herding is officially recognized as a leading industry in the *kozhuun,* although the district probably has more cattle and horse breeders than reindeer herder-hunters. Interestingly, reindeer herding, is perceived as *severnoe olenevodstvo,* or northern reindeer herding, and is understood by Tyvan officials through the lens of the tundra type of reindeer herding, of which the main goal is to produce meat. Tundra reindeer herds are large-scale and can encompass from several hundred to several thousand reindeer. Since the fall of the Soviet Union, the number of reindeer in the Tozhu reindeer herding population has drastically declined. The Tyvan government has tried to develop reindeer herding with a model of meat-oriented production.

According to the data provided by the district's administration, on the 1st of January 2015, 35 people were engaged as reindeer herders, with a total of 2,782 reindeer. Odugen, the unitary municipal enterprise, included 19 reindeer herders and 1,880 reindeer. Sixteen other reindeer herders, with a total of 902 reindeer, remained as private enterprises, primarily engaged in *lichnoe podsobnoe khozyastvo,* or personal subsidiary farms for family consumption. These personal subsidiary farms had a total of 902 reindeer. Frankly speaking, the district administration did not make a real effort to count the people and animals, and therefore the totals are very likely inaccurate. Typically, the count is done from what reindeer herder-hunters report. In reality, approximately 60-70 percent of the people on the official list are actively engaged in reindeer herding, and the rest (30-40 percent) are referred to by the actual herders as 'paper reindeer herders.' These people own the animals but do not participate in reindeer herding. For instance, one couple officially considered reindeer herders with the Odugen enterprise, actually reside in

Adyr-Kezhig, and hire a man to herd their animals. The husband occasionally goes to the camp to check on the herder and the animals. Another man named Maxim was in jail, and his brother, who is the actual herder, was looking after Maxim's 21 reindeer. The same situation happens among the private herders. For instance, Olesya works in the archive in Toraa-Khem, and her brother Omak herded her and her husband's 22 reindeer together with his own. The official definition "reindeer herder" in the Tozhu district means simply owning reindeer. However, the herder-hunters are included in this loose definition of herding and hunting, and they call these sorts of reindeer owners *bumazhnye olenevody*, or 'paper reindeer herders.'

2.2 Behind the All-Russia Census: Undercounting, Birth Rate, and Economic Roles of Women

In 1991, totaling fewer than the 50,000 threshold,[29] the Tozhu were officially recognized as *Tuvintsy-Todzhintsy*, a numerically small indigenous people of Russia (*korennye malochislennye narod Severa, Sibiri i Dal'nego Vostoka*) (Sulyandziga et al. 2003). This ethnic designation granted the Tozhu special status and material benefits. As for the Tyva, their population was above 50,000 people, and so they were officially recognized as a minority and a titular nationality of their own republic. Because the Tozhu consider themselves Tyva and are viewed by the rest of the Tyvan population as Tyva, no tension exists between the two groups. Although the federal government has the power to define ethnic groups, it does not always follow through on its promises to those groups, for example, the Tozhu do not receive all the benefits they are due as indigenous citizens. The majority of people in the Tozhu district, including herder-hunters, are unaware of their rights.

It is interesting to note that the Tozhu have had one of the more bizarre cases of confusion of their ethnic identity, due to the fact that their nationality was artificially constructed by the federal government. They know who they are and they mostly identify themselves as the Tyva, while at the same time they can identify themselves as the Tozhu. According to the Russian census of 2002, the Tozhu population was 4,442 and the district population was 5,931 (Vserossiyskaya perepis' naseleniya 2002). But for the 2010 census, only 1,858 people identified themselves as Tozhu in a district population of 6,020. At that time, the Tyvan population in the republic was

[29] To be officially recognized as numerically small indigenous people of the North, Siberia, and the Far East, the population number must be less than 50,000 people.

263,934 (Vserossiyskaya perepis' naseleniya 2010). The 2010 census missed more than two thousand of the Tozhu, making it appear as though the population had declined drastically. RAIPON and some mass media raised an alarm, assuming that the decline was due to suffering from typical social and economic problems common among indigenous populations. According to Anna Cherepanova, the head of the State Statistics Department of the Tozhu district, the federal government expressed concern and raised inquiries about the apparent decline, including contacting Cherepanova. She explained that when the census survey was conducted, many people were unaware of the designation of "Tozhu." When it came to the nationality question about self-identification in the census form, the survey conductors typically asked the questions: What is your ethnicity? Who are you: the *Tuvinets* (Tyva) or the *Tyvinets-Todzhinets* (Tyva-Tozhu)? The government was very surprised that many respondents were confused by the *Tuvintsy-Todzhintsy*[30] term. Although the ethnic category had been introduced nineteen years earlier, some people had never heard of it before. The survey conductors had to explain what the term meant and what it entailed. Moreover, many respondents refused to be identified as *Tuvintsy-Todzhintsy,* asserting that it would be ridiculous to separate them from the rest of the Tyvan population. Cherepanova said that she would never forget one comment made by a man from the Erzin district, "The Tyva in the Erzin district could also split and claim to be the *Tuvintsy-Erzintsy* (Rus. Tuva-Erzin), because they also herd different animals, particularly camels. What would happen, if the Tyva in Bay-Taiga decided to identify as the Tyva Bay-Taiga because they herd yaks?" This would be unexpected, and it would be problematic for the whole nation. This man probably was not aware that the Tozhu have different ancestors, but there is some truth in his words. If some Tyva decide to identify as a separate ethnicity and split from the larger culture that would mean the separation and fragmentation of the people, and nothing good would come out of it. One larger, broadly defined minority, has more political power than many tiny, narrowly defined minorities.

Because of the confusion over the definition of "Tozhu," and because some are reluctant to identify themselves as Tozhu, counting the population remains a serious challenge. The undercount of the last census could have been as high as 60 percent, theoretically. In this respect, the Tozhu have a dual identity. According to Anderson (2000), this phenomenon is a 'relational identity': when politic, economic, and social changes transform the self-identity of a group. In other words, the identity "was crafted especially for the convenience of the observer" (Anderson

[30] Plural form.

2000:91). However, the census has no plans to adjust the count, and this undercount may ultimately have a negative impact on the staying power of the Tozhu as a minority group.

Because very few material and social privileges come from being recognized as indigenous Tozhu, people prefer to identify as Tyva. For example, the larger, usually federal universities,[31] which have much higher tuition than the smaller universities, give a ten percent discount to numerically small indigenous peoples. Unfortunately, even with the discount, the tuition is so high that only very wealthy families can afford it. Although the Tyvan State University[32] and community colleges in Kyzyl do not offer such discounts, they are quite affordable, and the cost of living is lower than in big cities. The location makes a major difference in education cost. Families take into account that attending a school close to home means that they do not need to buy air or bus tickets to travel to and from school. In truth, the majority of rural Tyvan families can hardly afford to send their children to local schools. As for the Tozhu reindeer herder-hunters, they can usually afford only Tyvan schools, if any school at all.

During my fieldwork, I usually asked my study participants how they identified themselves. The typical reply was "Tyva." I asked, "What does it mean to be Tozhu?" "The Tyva living in the Tozhu district," was the usual answer I received. Clearly, the Tozhu do not consider themselves distinct from rest of the Tyvan population. Because the official designation confused the respondents, the Tozhu population was undercounted, indicating that the census officials must interpret the census data carefully.

Interestingly, the Tozhu *kozhuun* has the highest population growth rate in the Republic. It is probably one of the most unique moments in Tozhun history, as the population has increased steadily for the last ten years. In forty-two out of eighty Russian provinces, the birth rate is lower than the replacement rate, but a few populations, including the Tyva Republic, are showing rapid growth (V tsentre Azii 2015). According to the Tozhu administration, amongst the sixteen districts with a growing population, the Tozhu district was number one with a birth rate of 26-27 per 1,000 in the population. We tend to assume that a rapidly growing rate is tied to a developing economy and improved infrastructure, but the growth in the Tozhu district has nothing to do with economic development. To achieve population stabilization, the federal government began to offer

[31] High-ranking universities that combine research and teaching and have support from the federal government.
[32] It does not have a status of the federal university.

significant family assistance, implementing the Maternity Capital Program in 2007. The main goal of the program is to financially support families with two or more children. Every woman who gives birth to or adopts a second child receives a certificate in the amount of 453,026 rubles (USD 7,954)[33] (*Pensionnyy Fond Rossiyskoy Federatsii* 2016). The money is not taxed and can be spent on improving housing conditions, put toward the mother's retirement plan, or invested in a child's higher education. These benefits affected almost all families with women of reproductive age in the *kozhuun.* Young women with one child are strongly motivated and encouraged to have a second child as soon as possible, as the program will end in 2021. Even women in their early and middle 40s have been trying to have one more child. Because typically three Tozhu generations live under one roof, families usually choose to use the money to improve housing. With the subsidy, they can afford to build or buy a new and better home that better meets their requirements. Although home construction costs are slowly rising, they are comparatively lower in the district, which is rich in forest resources. In 2009, a sawmill opened in the Toraa-Khem administrative center, which successfully processes and sells lumber to the local population.

Indeed, Tozhu is the district with the fastest growing population in the republic. Today's baby boom is in tandem with the housebuilding boom in the district. Clusters of private log houses have grown up quickly in the Toraa-Khem suburbs. No building experts or companies are involved in creating plans before construction begins. Residents usually build the houses themselves, with the help of their families and relatives, or by hiring unemployed residents. Houses are typically built sporadically, very close to one another, and in no particular order. The fast-growing new residential area represents a stark contrast to the comparatively well-organized areas built during the Soviet era.

The residential area organization is a little bit different in Adyr-Kezhig village, where the reindeer herder-hunters and their families have houses.[34] The village has four wide main streets, and houses with large yards. The new house units are built alongside a street. Houses have gardens in their yards and sometimes a large potato plot. With regular power outages, it is unrealistic to have a hot water heater in a new house. Log house frames are appearing everywhere in the village, indicating an optimism for the future, particularly for young families. Because it provides an

[33] This amount of money was given on March 14, 2018. The amount was converted on OANDA.com on March 14, 2018.
[34] Only one reindeer herding family has a house in Toraa-Khem.

opportunity to build affordable houses, people are hurrying to take advantage of the Maternity Capital Program. This program is the light at the end of the tunnel for poor households in the poorest villages of this remote Siberian province.

Whether employed for pay or not, the Tozhu women are serious breadwinners, and their economic contributions can be estimated at least in the amount of the 453,026 rubles (USD 7,954) provided by the Maternity Capital Program, not counting their domestic work. Their productive activities that result in a contribution to family wellbeing are usually overlooked by statistics. Women's work in developing countries is mostly uncounted and undervalued, but their contributions are vital. The main difficulty in such studies is that what should be considered work is not, and the measures used to describe production are inadequate. Researchers agree that the Force Labor metric, which is considered the standard measure of work, is not well suited to developing countries, and particularly not to rural communities (Youssef 1982, Dixon 1982, Sidh and Basu 2011). Typically, the focus is on use value rather than on exchange value (Donahoe D. 1999). Other researchers assert that all activities that take time, energy, and contribute to the family must be conceptualized as work (Massiah 1990; Henderson et al. 1996). In the Tozhu case, it is more or less clear what measure should be used for women's economic contribution. According to the district statistics, this population's overall rate of employment is about 10 percent. The information about the female employment rate is unavailable. All women of reproductive age, no matter their employment status, have experienced economic stimuli for further childbearing (Figure 2). At this point, reproduction produces income that contributes to family maintenance, particularly in the households with a high poverty rate. With the Maternity Capital Program, Tozhu women usually participate in household decision-making, which is recognized by their families. A precise portrait of women's contribution is necessary to understand contemporary life fully in the Tozhun rural community.

Figure 4. Children of Adyr-Kezhig with new house frame. June 2015. Photo by Tayana Arakchaa.

The Maternity Capital Program is one of the rare Russian government programs that works well and helps many families. In the Tozhu district, I saw that the program has had a more significant impact on villagers' lives, making decent housing affordable.[35] It is important and much appreciated there. On my first trip to Adyr-Kezhig in 2013, I met Nadya Baraan, who was my host. Born into a reindeer herding family, Nadya was adopted as a baby by her childless maternal aunt. Nadya, 44, a widow with a nineteen-year-old daughter and a twelve-year-old son, was a typical single woman with a three-income household. At that time, Nadya worked for a very low salary as a janitor at the secondary school; as a widow, she received child support for her son from the government, and her seventy-nine-year-old mother received a pension. Nadya, her son, and her mother lived in a tiny house where there was hardly room for three people. Her daughter, Alyana was a student at the community college in Kyzyl; she married and in about a year, had a baby. To continue her education, Alyana sent her daughter to Nadya. It is customary in Tyva for women to take their grandchildren without receiving money for their food or upkeep. As was true

[35] In the capital, housing is incredibly expensive, and it is possible to use the Maternity Capital certificate as the first payment of a mortgage.

for most of the villagers, Nadya struggled with meeting household needs, not to mention babysitting and housekeeping. By 2014, Nadya began to struggle with heavy drinking, and as a consequence of her frequent parties, she was fired from her job. During this time Nadya had a boyfriend who enjoyed partying with relatives as much as she did. In the village, Nadya's behavior was considered extreme or wrong, especially when the parties turned into binges lasting up to several days. Nadya regarded her drinking as normal and helpful, allowing her to enjoy her rather boring life as a babysitter. In that same year, Alyana gave birth to a second daughter, born practically one year after the first one. The Maternity Capital Program had been extended to 2016, making Alyana's pregnancy economically valuable. In 2015, when her mother passed away, Nadya lost her second income. To add to Nadya's financial stress, Nadya was a good-hearted woman, and the door of her house was always open. In 2012, her relative, a young girl with a newborn baby, stayed for a year in her place. The girl's boyfriend from another district had broken up with her after she gave birth, leaving her alone to raise the child. The girl was an orphan, and her other relatives did not want to support her. Within a year, the girl happily married a young man from Toraa-Khem and moved into his house. After Nadya's mother passed away, a fifty-year-old male relative appeared at her house. Having been recently disabled and homeless, he had heard about Nadya's recent loss. He offered to exchange his pension and his labor as a fire tender for food and cigarettes. Nadya agreed, and her mother's bed was quickly taken.

In the spring of 2015, Alyana brought the second baby to Nadya because she needed to prepare and pass her finals. She scolded her mother for drinking and being irresponsible, warning that if Nadya continued to drink, she would take her daughters back. Because Nadya loved her granddaughters, she stopped binging on alcohol and focused on her grandchildren. Nadya was able to lead a more responsible and balanced life and scraped by on her widow's pension along with the male relative's pension.

Alyana's husband was an orphan who has a small printing business in Kyzyl. The capital's housing is expensive and the young family could hardly afford to pay to rent an efficiency apartment and still cover living expenses. The couple planned to move to Adyr-Kezhig when the youngest daughter turned three and to build a house with the Maternity Capital Program money. In addition, they were going to open a small printing business in the village, or some other business. Nadya was excited about the idea that soon the whole family would unite in the village, and she would continue parenting her grandchildren. One day, she showed me the possible spot for the

future house, right in the middle of the village. She told me that with Alyana's Maternal Program money, the young couple could build a decent, big house. Nadya also stressed that life was becoming better in the village because people were making plans and building new homes.

News and gossip spread quickly in the villages, and the school administration may have heard that Nadya stopped drinking so heavily. She was asked to return to work in the fall of 2015. Claiming the Maternal Capital money allowed the young to thrive, and improved Nadya's life, benefiting all three generations. It is easy to predict that, with the stimulus of the Maternity Capital, the birth rate will continue to rise. It is the most dramatic positive change for families in rural areas and women play an important role in contributing to the family well-being. Local officials predict that as long as the Maternity Capital Program runs, the birth rate will remain high.

2.3 Traveling to the Taiga

It took some time to arrange my trip to Adyr-Kezhig, particularly to find a family who would host me and to gain access to the summer *aal* (herding camp) in the mountainous taiga. Fortunately, I was introduced to Sayzana Kol and Andrey Baraan, a couple of reindeer herder-hunters. Sayzana and Andrey were babysitting their newborn granddaughter, and they agreed to take me to their *aal.* The couple had been reindeer herding and hunting for the last twenty-three years and had a good reputation as reliable and *nep'yushchie lyudi* (literally "not drinking people"). The last feature was very critical, considering the majority of the villagers spend most of their time drinking in summer. Sergey Kyrganay, a reindeer herder-hunter, described them as true reindeer herder-hunters who were very mobile, often migrating far away to explore the land. Mobility and a passion for traveling to different, distant locations made people true reindeer herder-hunters, in the eyes of other reindeer herder-hunters. My host family helped me rent a horse, as this was the only way to get to their *aal* through the mountainous taiga in summer.

According to their last names, someone might assume that Sayzana Kol comes from a cattle-breeder's family and that Andrey Baraan is from a herder-hunter's family.[36] However,

[36] Because the Tyva did not have last names, the Soviet officials gave them their clan names as their last names. The Soviets made a mess of the clan and last names. Thus, Kol became the last name for almost all reindeer herding clans, while Baraan included all cattle-breeders. Typically, Tyvan last names give some information about the person, and some have cultural stereotypes. For instance, my maiden name is Mongush; it was the most numerous clan of several thousands of people. "Mongush" means that my father's family is from the western part of Tyva, particularly the Dzun-Khemchik district. The Mongush

Sayzana was from the herder-hunter's family and Andrey's family was neither born of herder-hunters nor cattle-breeders. Andrey's parents died when he was a young child, and he grew up in a boarding school. The couple, however, started to practice reindeer herding and hunting after the collapse of the Soviet Union, when Sayzana's parents retired and left a herd of reindeer to them. Although Andrey grew up in the village, he had become an experienced hunter and reindeer herder, which was exemplified by the fact that Sayzana's parents chose to leave their herd to their daughter rather than her two elder brothers. Sayzana's oldest brother, Anoka, was in jail for eleven years. When he was released, there was severe unemployment in the village and he did not have any skills except for reindeer herding and hunting. Sayzana asked him to join her *aal.* She gave him several does, and they had calves the next spring. That was how Anoka started his small herd. Surprisingly, Sayzana's second brother, Andrian, did not have a desire to be a herder-hunter, as he did not like the cold and harsh taiga conditions. He loved horses and always wanted to be a horse and cattle breeder. He owned thirty horses and several cows, and his *aal* was situated not far away from Adyr-Kezhig. The youngest brother Dulo was too young to continue the parents' occupation. A father of two children, Dulo and his wife decided they did not want to lead the challenging nomadic lifestyle, especially with young children. Instead, Dulo came to the *aal* every hunting season to make money from sable hunting.

When I asked people why they chose to become herder-hunters, they always replied, "No jobs are available in the village. We are not educated people, and we do not have any other skills. We know only reindeer herding." Compared to other Tyvan herders, particularly wealthy herders with a *mal* consisting of up to a thousand of animals—sheep, goats, horses, cows—herder-hunters with their small herds look poor. Still, compared to the unemployed villagers they are not poor: they have their own herds, go hunting routinely, and make good income on sable and musk deer.

Sayzana and Andrey managed their *aal* successfully. The couple were hard-working and prominent reindeer herder-hunters in the Serlig-Khem group. Andrey was known as a skillful and knowledgeable hunter who always had a good harvest in the taiga. He hunted routinely and knew wild animal behavior as well as the behavior of his reindeer. Although Sayzana began to hunt several years ago, and she was also acknowledged as a good reindeer herder-hunter. Sayzana had a strong personality. She was smart, sociable, honest, and straightforward. She expressed her

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are stereotyped as being sly, stingy, and wanting to rule over others. However, the Mongush usually say that they are smart, practical, and ambitious. I will talk more about the Tozhun clans in Chapter 3.

opinion in a forceful and unquestionable way. Everything was clear and if you did not like something, you could just take it or leave it. I also noticed that some other reindeer herder-hunters were straightforward, and this prominent feature made them different from other Tyvan groups. On this point Sayzana and I were matched, making it easy for me to talk and work with her. Andrey was quiet and not as sociable as his wife. He was not eager to talk to me because of the language barrier; although I understood almost everything in Tyvan, I spoke mostly in Russian. Frankly speaking, I do not know what I would have done if they had both been quiet people.

Sayzana and Andrey lived in the Serlig Khem region. It took us five days on horseback to reach their *aal,* about 150 kilometers from Adyr-Kezhig. It usually took three days for my guides to get there, but because I was an inexperienced rider, I was not able to move quickly through the slushy, deep taiga. I slowed the trip down. This trip was very challenging for me both physically and mentally. I had never ridden a horse or a reindeer before, and horses were one of my greatest fears. Growing up, I heard horrible stories from my mother who worked as a medical nurse in an emergency room in the Republic Hospital No. 2 and an Air Ambulance in Kyzyl for several years. She treated many heavily injured riders brought in from different parts of the republic. One unlucky herder was the first patient to die in her arms. My mother knew that a fall from a horse could result in serious damage, paralysis, or death. When I was six or seven years old, the kindergarten was closed in summer, and my mother often took me to her hospital. I mostly played outside with the other children, who were hospital patients. One day I saw a young man bloodied with multiple injuries who was brought to the emergency room from the herding camp. When my mother left the emergency room, she hugged me and said, "This young guy probably will be handicapped for the rest of his life. Promise you will never ride a horse in your life. Do not do this! Look what happened to the rider who fell off the horse." I replied, "I promise." Later, we visited relatives at their herding camps in the Barun-Khem district in the western part of the republic. Once I saw how a horse kicked the head of a young boy who approached it from behind.

Because of these sad stories and seeing those injured people, I had a fear of horses that I had to overcome to pursue my research. I did not know how to overcome this fear, and I did not expect to develop competence and comfort with a horse over rough ground, because this trip was too short for such a difficult task. Even the relatively simple task of mounting a gelding was a challenge for me. While both my guides easily hopped on their horses, I was not able to hoist myself onto mine. Andrey always had to help me mount my gelding. It was also embarrassing that

I was so physically weak because of my comparatively less active lifestyle. I feared that one day the typically straightforward Sayzana would make fun of me or tease me about my weakness, but it never happened. Two years earlier the couple had served as guides for a Russian couple from Moscow whom they took to the Choygan Hot Spring. The Russian man was a bodyguard of the former Russian President Eltsyn, and he was looking for a plot of land for sale in Altai or Tyva on which to build a house. The couple were first-time horse riders. To make riding easier, the man put a small pillow on the saddle, but that made balancing while riding more difficult for him. By the end of the trip he was so exhausted that they he could not move at all. Sayzana told me that I was a better rider than those Russians. She said to me, "You are a Tyva. It is in your blood to ride a horse." I was not sure how true this was, but after that I felt relieved.

First, we rode on a narrow trail through the muddy and swampy taiga, where the mosquitos were annoying and made the trip uncomfortable. Then we climbed mountains, moved through many hills, and crossed plains, forests, and rivers. We rode six to nine hours per day. We crossed many rivers (usually the same twisting rivers) on horseback. All the rivers had fast currents, especially in the mountains. Looking at fast-moving water could make one easily dizzy, which was dangerous enough on its own. Adding boulders, logs, and whirlpools, as well as the chance of falling from a horse made the risk of injury very high. In one place where the Biy-Khem River was too deep to cross on a horse, we used a small inflatable boat. Andrey and Sayzana made the horses cross the river. Andrey had hidden the boat on a tree, and they used it when they needed to cross the Biy-Khem at this point. Sayzana and Andrey expected that I would panic crossing rivers, and they probably thought that I did not know how to swim (because all rivers have fast currents in Tyva, and many Tyvan women do not know how to swim). Sayzana told me that some people did not like to cross rivers because it made them dizzy. Later Anoka asked me if I was scared to cross the river on the small boat. I replied that I was not because I knew how to swim. Then Anoka confessed to me that for him, this crossing was the scariest thing in the taiga because he did not know how to swim.

Anoka always liked to talk about harsh conditions in the taiga. Apparently, he wanted to see me suffer through all the challenges of the taiga while I was there. However, to his disappointment, it seemed to him that I did not suffer at all. During the last of my fieldwork, he said, "You do not suffer here. You just have a vacation here. You will never understand the taiga life here." I replied, "It is not a vacation for me. I am doing my job. Vacation for me is when I do

what I like to do, and I do it with my family or friends. I am learning about the taiga life. Why should I suffer? I am in a warm log cabin. Every day I eat a variety of fresh game meat." When I told him about my challenges and difficulties, he only commented: "This is not enough; that is not enough." I had a feeling that he wanted to see me burst into tears, complaining how it was difficult for me to be in the taiga. Anoka's wife, Vika, told me when she went the first time to the *aal*; she was very close to tears because three days of traveling was very challenging even though she knew how to ride a horse. I assumed that because I was from a town, people expected me to complain about the difficulties of life in the taiga. Of course, I was not comfortable doing everything, but it was my choice to come for this fieldwork. I had to become tougher in order to deal with difficulties, and I did it with a positive mind.

Falling off the horse is inevitable for an inexperienced rider, especially in such dangerous terrain, the taiga. I fell off my horse on the first day, and this fall could have been very perilous. Nobody told me how to fall safely. Luckily, I had rubber boots that slipped off my feet easily before my fall. I realized quickly how important it was to kick my feet out of the stirrups if I felt myself slipping. If I had been wearing hiking boots, my feet could have been stuck in the stirrups during the fall, possibly breaking my leg or yielding worse, possibly fatal, results.

After my fall Sayzana and Andrey decided to switch the horses. They gave me their young gelding, Shavydar, raised in Sayzana's *aal.* Andrey rode the village gelding I had rented. Shavydar was a Tyvan horse breed with much stamina. Shavydar was more suitable for the taiga than larger Russian horses. Shavydar knew how to move carefully in the taiga—a very critical feature for such an environment. The gelding I rented in the village was sometimes scared to go through the deep mud and swampy places; he would sit and refuse to move. For the first time in my life, I saw how animals too are frightened of pain and death. Only Andrey could make this village horse move. This difficult terrain was challenging for both humans and animals.

On the second day of traveling in the taiga, I experienced severe pain in my knee joints. When we stopped for breaks, I could not walk for about ten to fifteen minutes and could not help my guides to gather firewood. If I squatted, I could hardly rise again I was mildly chided for being lazy. I had to take Ibuprofen frequently to make my pain comparatively tolerable. My academia-soft hands were sore from holding the reins (by one hand) and the front edge of the saddle with a whip (by the second hand). The worst thing was that my young gelding, Shavydar, humiliated me as much as he could. People who work with horses know that horses do not listen to inexperienced

riders. I felt that Shavydar was testing me, mostly ignoring my commands. No matter how much I tried to use clear signals, he would ignore me even if I shouted at him. Clearly, I was not the proper authority for him. I was mad and desperate. He purposely walked to the edge of the narrow trail so that all the tree branches whipped my face. If I moved the reins to the opposite side turning to the right, he turned to the right edge of the trail and again I could feel all the branches of the trees on my face again. A couple of times my glasses fell off, but luckily, I caught them right away. Obviously, Shavydar enjoyed this human-humiliating process very much. Sometimes he stopped, refusing to move. In these moments, I was desperate and lamely tried to control him. He did not listen to me and behaved like a mischievous teenager. Sayzana had to come back, yelling at him, and he would respond to her commands immediately.

Once on the trail, I had a feeling that somebody was watching me. I looked around and did not see anyone else except my guides. I was neither nervous, nor was I afraid of anything because I trusted my experienced guides, yet I still had an awkward feeling that someone was watching me, even when nothing could be seen. This feeling became stronger when we had a lunch break. I felt someone's eyes constantly on my head while I was eating. It was an unpleasant feeling. I was thinking, who was this? A wolf or a bear? A bird? Taiga *cher eezi* (spirit-master)? If it was a bear, he might have made a noise by walking and horses would feel its presence. If it was a wolf, was he going to attack me when my mischievous Shavydar would stop again? When we continued traveling, I still experienced the sensation that someone was watching me from behind. I asked my guides if they had the same feeling, but they did not. It was not paranoia. I usually have strong intuitions about people and events, and I felt that someone was watching me. Who was watching me: an animal or *eezi*? This strange feeling disappeared only two hours later. A year later, when I traveled in the taiga with another group of reindeer herder-hunters, Sergey's son Danil, all of a sudden, began to shout and throw stones into the bushes to the right of the trail. Danil heard some noise and noticed that the bush branches were moving while we moved. Danil also thought that somebody was watching him. Danil was convinced that a wolf was following us and he was irritated by this. He continued to shout and throw stones for the next forty minutes while riding his reindeer. I told Danil about my previous experience of somebody watching me. He thought that it was a wolf because only this animal could follow humans by hiding in bushes for long hours.

On the third day, Sayzana told me that she would not return back if I fell behind them, and I needed to manage my riding techniques properly. In addition, Shavydar sometimes slipped on a

muddy trail and frequently tripped over dried tree roots coming from underneath the slippery trail. I was already exhausted from keeping my balance and keeping control of the reins. On the last day of travel, I felt completely broken. I could hardly move, my body ached, and my painkillers did not help much. I developed bloody wounds on my lower back from the continual horseback riding. My knee joints hurt all the time. The only good thing was that my guides took care of me, made a fire, cooked food, fed me, and gave me a reindeer hide for bedding during the night. Sayzana was helpful; she gave me some tips about riding a horse (later a reindeer), choosing a spot to sleep for a night in the taiga, organizing my bedding, and doing other little things to make my trip more comfortable.

CHAPTER 3: TOZHU REINDEER HERDING AND HUNTING

3.1 The Notion of the Taiga

This research project links the study of Tyvan hunter-reindeer herders to reindeer herding in Inner Asia and Siberia. What makes these herder-hunters different from tundra reindeer herders or other northern nomadic pastoralists is the environment in which they live—taiga and forest-tundra. The inhabitants of this region rely entirely on three species of domestic animals: reindeer (*Ranfiger tarandus*), horses (*Equus ferus caballus),* and dogs (*Canis lupus familiaris).* This reliance on the three species simultaneously is a distinctive feature of the taiga hunter-gatherer-herding peoples, and this feature is often overlooked by scholars. Let us first examine the meaning of the word "taiga." According to Eduard Murzaev (1974), this word came to the Russian language from the Mongol-Turkic languages quite recently, at the beginning of the 19th century. Later it became a universal term for a "boreal forest" in the English-speaking world. Olga Molchanova (1979) points out that "taiga," meaning "snowy highlands; a forested mountain" (Molchanova 1979:173), can be found in many Siberian Turkic languages. In Mongolian languages, it means "dense mountain forest." In some Turkic languages, it means "unpopulated woodland with ridges; mountain forest; rocky mountains; unforested mountains; mountain peak above the forest line" (Molchanova 1979:173). Toponyms can provide valuable information about the history of a particular region. Because there is a high concentration of toponyms including the word "taiga" in the mountains of southern Siberia, it is widely accepted that the origin of the word "taiga" is in this region. In addition, the Tyvan epos, an epic tale which was formed in the 7th-9th centuries (Grebnev 1960b), also includes a large number of toponyms including "taiga." In Tyva, there are numerous toponyms that include "taiga:" Bay-Taiga (Rich Mountain), Khaan-Taiga (Khan Mountain), Möngun-Taiga (Silver Mountain), Kyzyl-Taiga (Red Mountain). Molchanova (1979) stresses that "taiga" is an orographic term rather than a landscape term and can be applied to describing any mountain. Although the Tyva and the Tozhu distinguish "*dag*" ("mountain") and "*tandy*" ("highland taiga"), they refer to a mountain peak usually covered by snow even in summer as "taiga." It is called *golets* or *belki* in Russian. In the Tozhu case, we can define "taiga" as follows:

1. A mountainous boreal forest,[37] a ridge forest (Figure 5)

[37] A distinguished from *arga* ("forest").

2. An unforested mountain peak above the forest line covered by snow or some patches of snow in summer time.[38]

Figure 5. Taiga. June 2013. Photo by Tayana Arakchaa.

The taiga environment is so important to the Tozhu that they use the taiga to measure distance while traveling. When traveling by horse or reindeer, I sometimes asked, "How many kilometers left?" My Tozhu guides often vaguely replied: "*Myak-myak* (close)." Occasionally they would reply more specifically, "Four hours of riding" or "I do not how many kilometers, but three taigas left [to cross three taigas]." Such ambiguous replies were confusing, because I was used to measuring distance with the metric system. In the beginning, I was glad to hear "three taigas," expecting that we were getting close to our destination. But what I thought was a forest in the

[38] Because of climate change, summer days have become hotter. Snow may be absent on the peaks, as I observed in July of 2013.

context of a mountain ridge turned out to be a different type of the "taiga". Because it does not make sense in their environment, the Tozhu are not used to measuring distance by kilometers. They are familiar with the metric system, but they are more comfortable using their own taiga system of measurement. They know every taiga in the entire realm of taiga (several smaller taiga regions that exist in the total taiga). This statement reads as a tautology, but we could compare it to the phrase "every mountain in the mountains." "Taiga" refers both to the singular and the collective. In other words, that they know every forest or mountain peak in the mountains. As I mentioned before, in this region the actual distance does not matter; what matters is the natural landscape between points rather than distances. When I arrived in the field, to my shame, I was not aware of the second meaning of the taiga. I am an urban Tyva with limited Tyvan who grew up in the capital situated in the middle of the endless steppe. I had never been in the mountains before, and did not know the second meaning of "taiga." Later, I began to gain geographic awareness of "taigas" and how people used taiga measurement and travel in their narratives. I managed to grasp the meaning of "taiga" only through my travels with the reindeer herder-hunters when we passed a certain taiga: a mountain forest, a ridge, or a mountain. Reindeer herder-hunters who migrate seasonally between the margins of the taigas, are familiar with the locale, and they easily approximate distance between certain points. Some terrains are more rugged than others. The distance could be the same, but the time it would take could differ. As an elder, Zina Namnyn, from Adyr-Kezhig said:

> At that old time people used the taiga [for measurement]. This is the taiga and that is the taiga [pointing to different directions]. Those are *taigalar* [plural form]. The taiga is everywhere. Everything is the taiga on that land. And the taiga is different, different. Each taiga has its own name. If you are there you just pass one taiga, two taigas, and three taigas. Everything is the taiga there. (Namnyn 2015)

Moreover, distance was measured not only in taigas, but also by riding either a reindeer or a horse. Riding a particular animal in the taiga has its own nuance (a full discussion of these nuances of riding will follow later). Crossing three taigas—three mountain peaks on the top of the mountains—in the summer (when the weather is fine, and the land is dry) can take seven or eight hours. The same three taigas, if they are muddy after several days of rain, become much more challenging and will take considerably longer to cross.

It is also important to keep in mind that the Tozhu developed their own adaptive strategies for traveling across the mountains in the taiga with their animals. In May and June, the water level

in numerous tributaries is the dominant factor in traveling to and from the village. If the water is too high, crossing it is very challenging, and it is better to wait until the level drops significantly. If the moon is full, it will usually rain or snow heavily for the next three to four days, and migrating before the full moon or after the showers stop is preferable.

3.2 Tozhu Reindeer Herding

Tyva has a diversity of livestock animals, which are essential not only to the local nomadic people, but to the whole Tyvan population. The Tozhu, with their reindeer, are unique among the Tyvan steppe-mountainous pastoralists with their cows, horses, yaks, camels, sheep, and goats. Today the Tozhu continue their traditional way of life, following short vertical migration routes with their small herds and exploring multiple taigas during their frequent hunting expeditions. Since the number of Tozhu herder-hunters has dropped, they have been portrayed as an "endangered people" in recent Russian popular discourse. Additionally, recent academic literature regarding reindeer herders refers to the taiga-type of reindeer herding as a dying economy (Baskin 2009). In Tyva, the Tozhu and their reindeer are a subject of pride, an example of nomadic cultural diversity, although they are not the only nomadic group who continue their traditional way of life. However, those left in the taiga are the most resilient herder-hunters. Like other reindeer herders in Russia, the Tozhu managed to survive difficult times during the post-Soviet crisis. Despite the collapse of collective farms and the post-Soviet economic transition, the herders were able to overcome hardships. Today, the Tozhu stress that they appreciate having their own reindeer, independence, and freedom from political institutions. They do their important activities whenever they want: hunt all year, migrate to different pastures, fish, and pick berries and pinecones. By bartering and trading fur and musk glands, they can earn a living and continue their traditional way of life. They say keeping their reindeer was the most important aspect of their survival. As Sayzana told me, "life has gotten better during the last eight years." Since Vainshtein conducted his research in 1950s-1960s, and especially the last twenty years, much has changed about the Tozhu nomadic way of life. My study deals with these changes and continuities, as well as with the adaptations of reindeer herding and hunting to co-existence with multiple animals in a shared taiga.

The Tozhu are known in anthropological literature as "territorial hunters" (Khazanov and Schlee 2012:12). In the mixed taiga-tundra environment of southern Siberia, the Tozhu developed the taiga type, or so-called "Sayan" type, of reindeer herding (Vainshtein 1961). They practice

reindeer herding "as a secondary activity that facilitate[s] the principal economic activity of hunting" (Donahoe 2012:100) (Figure 6). Nadezhda Ermolova (2003) points out that taiga reindeer herding[39] as practiced by the Tozhu, Tofa, Dukha, and Evenki has more similarities across the groups than differences. A number of scholars recognize that the Sayan type is the oldest form of reindeer herding (Kyzlasov 1952, Laufer 1917, Mänchen-Helfen 1992 [1931], Vainshtein 1961, 1968, 1971). The distinct features of taiga reindeer herding include small herds, free-range herding, short seasonal migrations, using reindeer for riding and carrying packs, using hunting dogs, and, in some cultures, sled pulling (Anderson 1991, Anderson et al. 2017, Brandišauskas 2017, Davydov 2014, Donahoe 2003, 2004, 2012, Fondahl 1989, 1998, Klokov and Khrushchev 2004, Petri 1927, 1928a, 1928b, 1930, Shirokogoroff 1933, Stépanoff 2012, Takakura 2012). The story of modern herder-hunters' survival in the taiga begins with a remarkable technical advance: the human ability to domesticate animals—reindeer and dogs—which made them successful as hunters.

Figure 6. Riding reindeer across the Academic Obruchev Mountain Range. August 2012. Photo by Tayana Arakchaa.

[39] From here I will use taiga or tundra reindeer herding.

It is widely accepted that the ancient Samoyedic population of the Sayan region domesticated reindeer at least 10,000 years ago (Vainshtein 1961, 1971, Vitebsky 2006). In Inner Asia, petroglyphs depict flying deer, indicating a strong cult of deer. Items found in Tyva burials include Scythian jewelry of various animal figures; one of the most popular figures being the deer (Grach 1980). The Scythian aesthetic appreciation of the animal's beauty and possibly their knowledge of the secret power of the velvet antler are apparent in these figures (Rus. *pantokrin*). In fact, the red deer or *maral* (*Cervus elaphus sibiricus*) plays a significant role in Tyvan creation mythology. In the widely accepted creation myth of the Tyva, progenitors of the human race were a female red deer, *Goa,* and a male wolf, *Börü-shonno*. The red deer is strongly associated with fertility and strength and the wolf with power and danger. In Tyvan language, the red deer is referred to *syyn* or *ulug-aŋ* (great animal). *Ulug-aŋ* can be translated as a "large animal," although elk are larger than red deer. The Tyva emphasize the special status of this great animal compared to other distinct large species.

According to Vyacheslav Darzha (2013), this myth is not only a story with extraordinary beings and fantastic events, but also symbolizes the domestication of the red deer. Studying domestication in Inner Asia requires a clear view of what specifically domestication means in this region. Some scholars define domestication as "the process whereby the reproduction of a deme (i.e. local sub-population) of animals or plants is appropriated and controlled by human society for material, social or symbolic profit" (Vigne 2011:172). Within this definition, domestication is differentiated from red deer-keeping in Tyva. Darzha (2013) states that until recently, the Tyvan cattle and horse breeders in the mountainous Süt-Khöl district, the north-western part of Tyva, practiced a form of semi-domestication of red deer, which consists of capturing an adult male red deer and keeping it in the corral up to six months, then killing it for its precious antlers and meat. In this particular situation an animal was kept in full captivity without any offspring. Humans opted for sustained stability by managing captive red deer rather than breeding them. According to Jean-Denis Vigne (2011), all large mammals were domesticated during the Holocene period, when favorable climatic conditions played a crucial role in the domestication process. However, red deer "episodic" domestication is the most recent mammal domestication occurring in different parts of the world including southern Siberia (according to current knowledge, it occurred at least by the 19th century), and it clearly demonstrates that the "multiplicity of human behavior takes various forms" (Vigne 2011:172) in the domestication process. Robert Dyson distinguishes two

definitions of "domestic" animals. First, "a domestic animal may be defined "culturally" as one which breeds in captivity and is of some significant use to a community" (Dyson 1953:661). Second, the osteological definition implies that an animal's domestic condition is demonstrated through the morphological distinction between bones of a domestic animal and a wild animal. Osteological change follows in the wake of cultural domestication. Pam Crabtree (1993:203) notes that cultural domestication focuses on "human behavior in the domestication process itself" while osteological emphasizes changes to the domesticated animal. Howard Hecker (1982) conceives of domestication as cultural control:

> [t]hat array of human behaviors that has a profound effect on some aspect of the exploited animal population's natural behavior and dramatically interferes with its movements, breeding schedule, or population structure in such a way as to make the animals more "accessible" to humans. (Hecker 1982:219)

Arman (1979) applies the term "semidomesticated" to animals that are not fully domesticated. Ingold (1980) distinguishes three processes of human-animal interaction: taming, herding, and breeding. In the Tyvan case, Darzha (2013) also uses the terms "semi-domestication" or "episodic" domestication to refer to red deer kept captive for several months under total human control. As Ingold (1980) notes, "[t]ame animals may be 'domestic', in the sense of their incorporation as members of human households, but need not be morphologically 'domesticated'" (Ingold 1980:82). Darzha (2013) points out that although red deer were captured in a 'wild' state and were not completely domesticated, the Sүt-Khöl Tyva considered it one of the nine domestic animals (Tyv. *tos chүzүn mal*). The term "episodic" perfectly describes human-red deer taming that does not include herding or breeding.

Little is known about Tyvan episodic domestication of red deer, and it is usually omitted in discussions of reindeer domestication. Although red deer and reindeer are different species, and hunting them requires distinct hunting tactics (depending on the season),[40] Darzha's information can shed light on animal acquisition and the dynamics of transitioning a wild animal from prey to domestic animal, as well as the domestication of reindeer in general. Ingold (1980) introduces the term "carnivorous pastoralism," which is defined as "the exploitation of animals for meat and other products of slaughter" (Ingold 1980:24). It is well-known that Tyvan carnivorous pastoralists exploited both domestic and wild animals for subsistence. The exploitation of red deer can

[40] However, both Süt-Khöl and Tozhu residents use dogs to hunt red deer.

demonstrate the earliest stages of cultural domestication, and it might suggest how reindeer domestication tactics appeared in this region.

Darzha (2013) suggests that "episodic" domestication of red deer probably started in the 8th-9th century BC, before the Scythian era. Early Chinese reports also describe the Basimi tribe, who lived in *chums* (tipis) covered with birch bark, not far from Beytin and Baykhay (Lake Baikal) during the time of the Suy Dynasty (586-618). Basimi hunted deer by skiing with one ski pole, a style of hunting similar to the one used by the Süt-Khöl inhabitants (Kyuner 1961:69 in Darzha 2013).[41] Darzha (2013) concludes that the Basimi were ancestors of the Süt-Khöl inhabitants. Because of to the lack of information concerning the breeding of red deer on the territory of Tyva, it is difficult to know exactly when the Tyva adopted this practice, although the Tyva have hunted red deer for a long time. Rather than considering the reasons for this semi-domestication, Darzha makes an assumption about the beginning date of the practice. Darzha (2013) points out that Tyvan herders and Chinese traders exchanged red deer antlers, tails, and genitals for fabrics, tea, and other goods. According to Alexander Afrikanov (1890), in 1888, 1360 red deer antlers were exported from Tyva alone by Russian traders, who resold them in Kuku-Khoto (a town in Inner Mongolia) to Chinese traders. At the end of the 19th century, red deer antlers were the most expensive animal product in Tyva. Their price ranged from three to five bulls, or two to five good horses, or from fifty-four to ninety sheep, depending on antler weight (the average weight was from 4.5 to 6.8 kilograms, and the heaviest antlers weighed from 8.1 to 9 kilograms) and the number of antler tips (Afrikanov 1890, Katanov 2011 [1889]). I suggest that Süt-Khöl herders initiated "episodic" domestication, the *maral* process, in the late 18th century, when their trade with the Chinese was booming. One of Darzha's informants, Sat Shandan-ool, was born in 1926 and learned the semi-domestication practice from his grandfather. His grandfather caught red deer in the late 19th century.

According to Vasiliy Lunitsyn (2004), in southern Siberia, particularly in Altai, antler velvet sales were an important income for the Russian population who supplied Chinese traders with red deer antlers. The Chinese traders kept secret the unique healing properties of velvet antlers, so the Russians did not know about them until after the 17th century. By the middle of the 19th century, poachers had almost wiped out the red deer population. So, it became easier to breed

[41] This type of hunting was used by the Tozhu until recently.

deer than to hunt them. Russian settlers realized that, because of the value of the antlers, deer breeding was a profitable business since the antlers were in high demand. According to Lunitsyn (2004), the Sharypov brothers were the first to breed red deer in a captive environment in Kazakhstan in 1940. At the same time, the first *maral* farm or *maral'nik* (red deer farm) was organized by the Chernov brothers in Altai. It is widely recognized that the first red deer farms in southern Siberia appeared in Altai. Today, *maral* breeding is a flourishing industry in the Altai Republic, which also produces a variety of supplements. According to Turchaninov (2009 [1915]), in 1914, there were several *maral'niki*[42] kept by Russians in the territory of Tyva. Some scholars have maintained that Russian settlers were the first to adopt the idea of *maral'niki*. However, Darzha (2013) makes clear that the Süt-Khöl herders were pre-adapted to the idea of red deer domestication and possessed the necessary knowledge to carry out this process. In actuality, they had practiced *maral* farms earlier than Russians in Altai. The Tyva probably knew that red deer could be tamed, but the herders chose not to breed them because they had other domestic animals and had to migrate. During the Soviet era, the Uyuk *gospromkhoz* (state enterprise) kept a *maral'nik* in the Biy-Khem district, but the *maral'nik* disappeared after the collapse of the Soviet Union (Figure 7). In 2013, the Tyvan government re-established a small *maral'nik* in the district.

[42] Plural form of *maral'nik*.

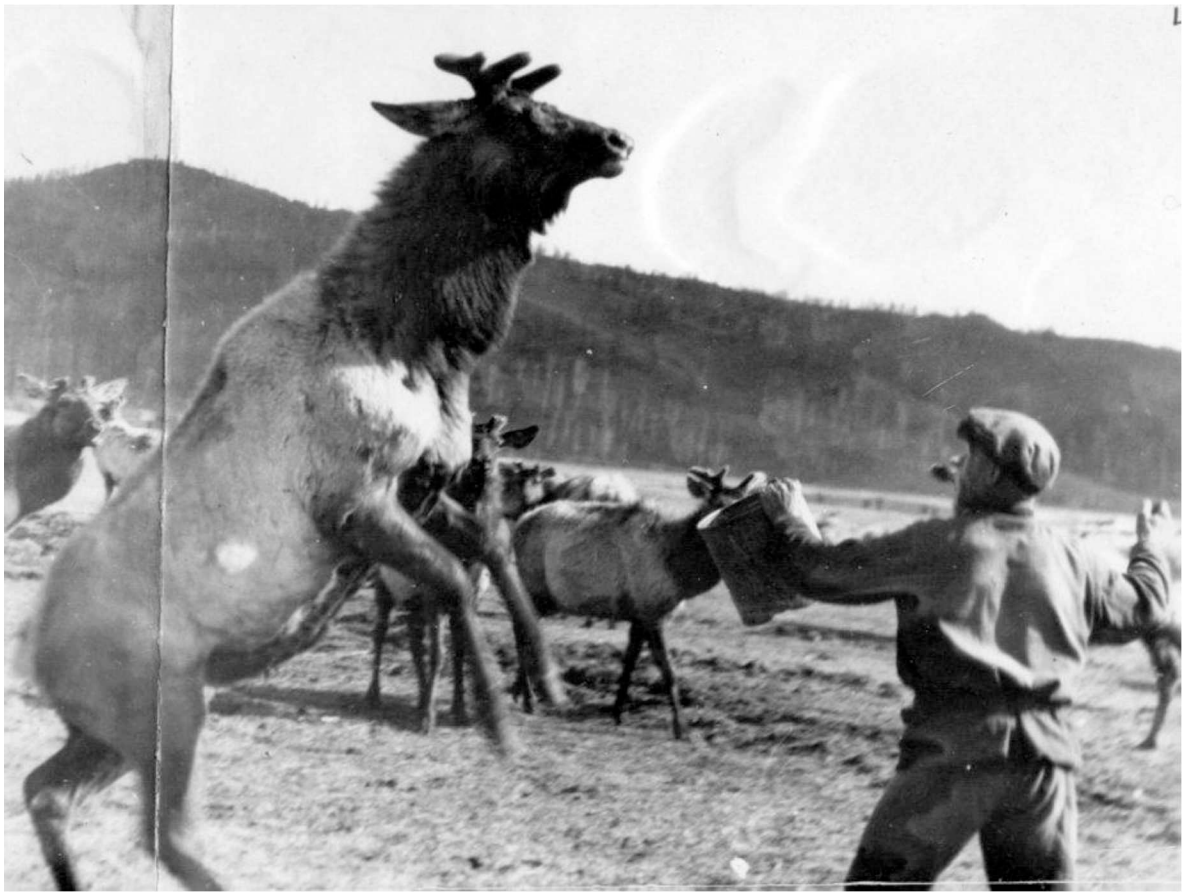

Figure 7. Red deer in the *maral'nik* of the Uyuk *gospromkhoz*. 1931. Photo by V. P. Ermolaev. Courtesy of the *Tyva Republic National Museum after Aldan-Maadyr*, cat. no. НМРТ КП-11286/1185.

As mentioned above, red deer-human relationships began with the capturing of an adult male deer. For the Tyva, the process of taming involves stimulating the most important sensory systems of the animal, including physical sensations and perception. Thus, herders use sight, hearing, taste, touch, smell, and movement in conquering the prey. Stimulating sensation and perception is a key part of the Tyvan notion of human-animal relations, no matter the species with which they are dealing. In the case of the red deer, Darzha (2013) describes the no-longer-used early and mid-20th century method for capturing red deer, in which the Tyva demonstrated stimulation of an animal's senses while it underwent the transition from the wild to domesticity. Typically, a male red deer was chosen for its large antlers and as a great source of meat, *shish* (Tyv), to consume during wintertime. Leonid Grebnev (1960b) states that in the past, horse saddle pommels were decorated with antlers of the red deer. In addition, some arrowheads (Tyv. *molduruk*) were made from the hard part of red deer antlers.

The acquisition of a wild animal and its placement into the human domain were marked in a symbolic way. Red deer capturing demonstrates the dichotomy of "wild/domestic." In describing "episodic" domestication, I rely on Darzha's work (2013). In late February or early March, after the does had given birth, the Süt-Khöl herders had one or two weeks of a light workload, allowing them to capture and corral red deer. The process required good organization and coordination by all the participants. At least two men participated in collective deer capture. For several reasons they usually chose a large adult stag with ten to twelve antler tips, in other words, a deer that was already ten to fifteen years old. First, they needed to harvest a large amount of antler velvet to exchange with Chinese traders. Secondly, a stag with large, heavy antlers (up to 24 kilograms) would usually become exhausted quickly trying to escape during the chase.

After the men spotted the stag, they began chasing him. The process of capturing a red deer is analogous to Van Gennep's model of rites of passage, with its three distinct phases: separation, liminality, and incorporation (1960 [1909]). The first stage of deer domestication involved separation from the old status, stripping a red deer away from his wilderness. At this time of the year it was easier to chase the deer because the snow would have begun melting, and the animal, disadvantaged by the deep wet snow, was easier to catch. The herders would take advantage of the stag's reduced mobility and chase him on horse-fur covered skis. They did not use dogs in the capture because dogs could drive the animal to the steep cliffs, where the deer would eventually fall off. Dogs were efficient in hunting, but not in capturing. The primary goal of the chase was to exhaust the animal physically by not giving it any chance to eat or take a break from running. Typically, hunters chased deer from morning to evening, for three to five days until, desperately, the deer stopped from pure exhaustion (Darzha 2013).

The second stage—the transition—was an in-between stage; the animal was cut off from his earlier wild status, but not yet integrated into domestic status. This stage was associated with ambiguity and deer sometimes experienced unpleasant ordeals. The exhausted animal was not able to move and fight against his chasers. Hunters created an entire system of new relationships with the animal by manipulating his sensory systems. First, to change the deer's perception of humans from being mortal enemies to allies, they placed a piece of rock salt the size of a human fist in front of the animal to let him lick. This step was the first in the taming process preparing the deer for his future role among humans. For the next step in the process, men lit a fire next to the deer for multiple purposes. First, the fire tested whether the stag was exhausted or not. A wild animal

would perceive the fire as a deadly threat; however, an exhausted animal would be unable to respond to this threat. Additionally, fire smoke was understood as an important and necessary marker of human body smell. Breathing fire smoke familiarized the red deer with the human smell and voice. Symbolically, "humiliating" the stag with proof of his physical powerlessness, and in purging the "wilderness" from him, the hunters conquered the deer (Darzha 2013). The Tyva share the notion that Rane Willerslev (2007) describes from the Yukagirs in Siberia: "Wood smoke is thus a signifier of human presence, and there is a real sense in which it serves to humanize hunters" (Willerslev 2007:84). Also, before going on a hunt, the Yukagir rid their bodies of smell and wood smoke by going to the *banya* (washing house), avoiding sexual intercourse with their partners, and staying clear of wood smoke in the time prior to the hunt (Willerslev 2007).

Darzha (2013) states that after this process the stag was understood as being ready to receive his new identity and transition into the human domain. With the help of long sticks (which also played the role of ski poles during the chase) and ropes, two men controlled the deer's movement to the *aal* (herding camp), where he was placed in a special corral, called a *kazhaa*. The corral was usually 50 hectares (500,000 square meters), and the fence was about 3 meters high with access to a fresh water source (a spring or stream). Finally, in the *aal* the stag transitioned to his new status as a "domestic" animal (Darzha 2013). His changed status from prey to being a "domestic" animal among the Tyva was not only expressed through physical removal from his natural environment, but also through symbolic activities that followed the actual capture. Throughout all aspects of the stag's rite of passage, the herders referred to him not as prey but as a person. This personhood of the captured animal was created through manipulation of his sensation and perception.

According to Darzha (2013), the pastoralists typically kept red deer from four to six months. One herder could keep from one to three red deer at one time. In the middle of June the stag's antlers were cut and sold to Chinese or Russian traders (who then resold them to Chinese traders), who valued them particularly highly. Antler velvet was a common ingredient in Chinese medicine, used to boost the immune system, to nourish the blood, and to treat arthritis and impotence. At the end of fall, stags were slaughtered for their meat. An adult red deer weighed up to 300 kg, with enough meat to support a family for three months (Darzha 2013:359-360). This strategy requires a high capacity for the accumulation and transmission of valuable knowledge. This store of knowledge about both animal behavior and the landscape indicates that the pastoral

inhabitants had developed methods for capturing and managing deer as a part of their subsistence strategy.

Close analysis of Darzha's research data provides a more comprehensive understanding of the emergence of red deer "episodic" domestication. According to Darzha (2013), one particular informant, Sat Shaldan-ool, caught one to three red deer every year and also owned five mares, one stallion, ten cows, as well as thirty to fifty sheep. Apparently, he did not belong to the cohort of wealthy pastoralists who kept hundreds of animals in their herds. Vainshtein (1980a) states that wealthy Tyvan steppe pastoralists in the middle of the 20th century hunted for sport, while only the poor herders hunted for subsistence. Moreover, the fewer units of livestock pastoralists owned, the more actively they engaged in hunting. Clearly, "episodic" domestication of the red deer was an alternative strategy for pastoralists with a smaller number of animals. By relying on red deer as a key constituent of their diet in winter, pastoralists saved their livestock, and, in the case their animals died of diseases, averted the threat of starvation. These pastoral domesticators were not quite dependent solely on their livestock production in order to subsist. Because they lived in an area close to the forest, they could rely on other resources, such as wild animals. Here we have a remarkably consistent story of "episodic" domestication of red deer, but it is still full of gaps and unknowns. For how many years did the nomadic pastoralists practice this strategy? Why did other Tyva living in the foothill taiga not practice this "episodic" domestication? We do know that the techniques for capturing and the rites of domestication of red deer can give insight into the capture and domestication of relic wild reindeer in the past.[43] In fact, when some Tozhu reindeer calves are born with yellow spots on their back. According to Semën Pomishin (1990), this trait was passed down to today's taiga reindeer from the early period of domestication of wild reindeer.

3.3 Tozhun Reindeer: Classification and Population Fluctuation

In discussing domestication, I would be remiss to omit mention of another important animal in Tyva: the wolf-dog. Recent findings suggest that the earliest modern humans domesticated dogs 36,000 years ago (Germonpré et al. 2009). According to Olaf Thalmann et al. (2013), fossils of early dogs found in Western Europe and the Altai Mountains of Southern Siberia suggest that the domestication of dogs dates to approximately 15,000 to 36,000 years ago, which is much earlier than the domestication of deer in southern Siberia. Admittedly, the dog specimens

[43] A wild reindeer is known as caribou in North America.

are contaminated, so the date is still not precise and could be much earlier (Shipman 2015). We also should keep in mind that the Sayan-Altai region includes territory from the Altai Mountains to the Sayan Mountains, which has a unique history and is considered an ancient geopolitically active region where European and Asian cultures met and traded in goods.

What is more, Pat Shipman (2015) argues that the arrival of modern humans, with their ability to form an "unprecedented alliance with another species" (Shipman 2015:228), particularly in turning wolves into dogs, drove the Neanderthals to extinction. A discovery in the archeological site at Denisova Cave in the Altai Mountains clearly shows that three human types, Neanderthals, Denisovans, and modern humans once occupied the Altai region (Gibbons 2011). These preliminary findings suggest that "the Denisovans were in the cave about 50,000 years ago, Neanderthals came in briefly about 45,000 years ago, and modern humans followed" (Gibbons 2011:1086-1087). The earliest date now postulated for the appearance of modern humans in the Altai region is about 45,000 years ago. It is not clear if those earliest modern humans who arrived at the Sayan-Altai region started to domesticate wolves and hunted with their wolf-dogs in the taiga zone, or if they brought their wolf-dogs with them from their old home. Or, possibly, the found dog remains in the Altai Mountain could represent an aborted domestication episode (Thalmann et al. 2013). Another problem is the lack of knowledge of whether ancient Samoyedic people arrived with dogs or without them. The fact is that "the humans involved in dog domestication were hunter-gatherers of some kind, not farmers" (Shipman 2015:180). Shipman (2015:48) describes them as clearly "successful invaders". One possible path could be that, first, ancient hunter-gatherers hunted with the assistance of their wolf-dogs and only much later under the influence of nearby cattle breeders did they begin to domesticate reindeer. If archeologists were to use the latest analytical methods available to re-date petroglyphs (picturing hunters or hunter-reindeer herders and their dogs) found in Tyva in the 1960s-1970s, the dates of petroglyphs may be much later than previously thought. The fact remains that modern human species, occupying the region and enduring its harsh taiga conditions, made an alliance with both a carnivore and an ungulate to assist them in hunting and survival.

To understand taiga reindeer herding, I must say a little about the nature of the taiga reindeer itself. Reindeer and forms of reindeer herding vary greatly from region to region. It is quite natural that the Russian literature is concerned chiefly with the following: 1) the origin of reindeer domestication, 2) classification of types of reindeer, 3) identifying the different types of

reindeer herding, 4) meat-oriented reindeer herding and production statistics, and 5) social and economic changes among reindeer herders. There are so many specific categories that the list of these classifications and typologies can seem almost endless. At present, there are several generally accepted classifications of reindeer and types of reindeer herding, organized in a number of different schemas. Based on intensive field research, these classifications facilitate the examination of the basic forms of reindeer herding and the economies of particular societies. As Anatoly Khazanov (1994) states, "Without classifications and typologies many generalizations are impossible, and without generalizations anthropological theories, general theories of nomadism among them, are also impossible" (Khazanov 1994:18).

Reindeer vary considerably in size, color, behavior, and distribution. The general typology of reindeer is widely accepted and used throughout the academic literature. According to this typology, there are two highly distinctive subspecies in both wild and domesticated reindeer: the tundra reindeer and the forest reindeer (Baskin 2009, Ingold 1980, Klokov and Krushchev 2004, Mukhachev 1976). They are morphologically and behaviorally distinct from each other. It is easy to distinguish the forest (taiga) reindeer from the tundra reindeer. Forest reindeer are usually larger, stronger, hardier, and less gregarious than tundra reindeer. Forest reindeer are much more domesticated compared to their tundra counterparts. Tundra reindeer are more gregarious than forest reindeer, usually forming herds numbering in the thousands (Baskin 2009, Ingold 1980, Klokov and Krushchev 2004, Mukhachev 1976).

All classifications of *Ranfiger tarandus* distinguish several subspecies, some of which are widespread and relatively common, some less common and rarer, and others already at the brink of extinction. Recent authorities have considered classifications done by Konstantin Flerov (1952), Alexander Banfield (1961), Ivan Sokolov (1959), and Knut Røed (1986) to be valid, which is convenient, as they are in widespread use. It is impossible to understand ecotype, behavior, and current ecological conditions without knowledge of a certain subspecies of reindeer. According to Baskin's biological classification of reindeer in Eurasia, there are five extant subspecies: *Rangifer tarandus* Linnaeus, *Rangifer tarandus sibiricus* Murray, *Rangifer tarandus fennicus* Lönnberg, *Rangifer tarandus valentinae* Flerov, and *Rangifer tarandus phylarchus* Hollister (Baskin 2009:6). According to this classification, the Tozhu reindeer that live in the taiga are recognized as forest reindeer, *Rangifer tarandus valentinae* Flerov (Baskin 2009, Flerov 1952, Klokov and Kruschev 2004). Distinguishing between different biological and ethnographic typologies should be done

with cautious attention. For example, anthropological tradition designates indigenous breeds of animals with the name of an associated indigenous people or a geographic region. In the Tozhu case, in ethnographic literature of the pre-Soviet period, this reindeer was referred to as the Karagas breed (Kertselli 1925, Petri 1928a, 1928b).[44] Once the indigenous people changed their name from Karagas to Tofalar (Rus. *Tofalary*),[45] their breed also received a new name: *Tofalarskiy* (Baskin 2009, Vainshtein 1961), although one authority, Pomishin (1971), identifies this breed as Tuvan-Tofalar. It was surprising to learn that the Tozhu were not aware that their breed was called the Tofalar breed. They argued that their breed was "Tyvan." Because they were not Tofa, they asked why their breed was named for the Tofa and did not feel comfortable with the name "Tofalar." The Tyvan herder-hunters themselves refer to their breed as Tyvan or Tozhun reindeer.

In general, the Tozhu refer to reindeer as *mal,* which translates as livestock or "a herd of animals." In Tyva, *mal* refers to all domestic animals. The Tozhu also refer to themselves distinctively as *ivizhiler* (reindeer people), while other Tyvan herders identify themselves as *malchinar, aratar* (herders), *chabany*[46] (herders) (Arakchaa 2014). In the Russian language, the Tozhu assert that they are *olenevody* (reindeer herders), although they also hunt intensively.

Using the number of species in herds as the primary distinction, Khazanov (1994) categorizes pastoral nomadism into monospecialized and multispecialized. Thus, multispecialized nomads rely on different species of livestock, while monospecialized nomads rely on one particular species of animal. Because they rely entirely on reindeer, the tundra nomadic herders are an example of monospecialized nomadism. Khazanov insists, "Amongst reindeer-herders monospecialization is characteristic of the nomadic society in its entirety" (Khazanov 1994:27). Although the Tozhu rely predominantly on reindeer, almost all households have between one and three horses. Ecological constraints play an important role in the distribution of ungulates (Khazanov 1994). With regard to Kazanov's categorization by number of species, the Tozhu should not be considered purely monospecialized nomads insofar as they do not herd just one species of ungulates. At the same time, the Tozhu are not specialist horse breeders and should

[44] Later the Karagas changed their name to the ethnonym Tofa.
[45] The plural form for the ethnonym Tofa.
[46] According to the Explanatory Dictionary of the Russian Language, *chaban* means "herder" and more specifically "sheep herder" (Ushakova 1940).

therefore be identified as occupying a transitional role between "monospecialized" and "multispecialized" nomads.

Khazanov states that "the distribution of ungulates is still subject to ecological constraints" (Khazanov 1994:26). While reindeer can be successfully herded in the taiga environment, horses are clearly unsuited for it. Although both reindeer and horses can pasture in the same ecological zones, they are not compatible during the winter months. Tyvan horses are hardy and well-adapted to the cold, but are more demanding in terms of food than reindeer. They are not able to graze the forage under the deep snow of the taiga. Horses are thus separated from reindeer and sent to pasture in lowland valleys for the winter. Horses are more useful in the summer, when herder-hunters descend from the mountains and go to the village. Because of the risk of reindeer getting overheated, the Tozhu avoid riding them in the summer, particularly when coming down from the mountains.

Published information about the number of reindeer kept by the Tozhu before the Soviet era is inaccurate and highly suspect. The figures published before 1917 are inconsistent, ranging from 2,500 to 78,000 head of reindeer. Early Soviet explorers generally omitted this information from their accounts. Bernard Petri (1927) claims that in 1924, numbers of reindeer drastically declined due to disease; the Tozhu refused to sell the survivors to the Tofa. In the early 20th century the Tofa in the Okinskiy district bought and traded reindeer from the Tozhu because they were two and a half times cheaper than animals from other regions. According to Svetlana Biche-ool and Ayana Samdan (2012), in 1930, 524 households owned 6,354 reindeer. According to the 1931 census, there were 10,000 reindeer in Tyva (Vainshtein 1980a). It is important to note that reindeer were also herded in the Kaa-Khem[47] and Kyzylskiy districts, but their numbers remain unknown.

The number of reindeer greatly increased over the next few years. Thus, in 1937, their number reached 13,457 head; in 1939, they reached a total of 16,555 head (Biche-ool and Samdan 2012); and by 1941, there were 19,000 head (Kyzyl-ool 1971). However, during World War II, their number dropped drastically to 3,700 head (Klopov 1973). The main reason was that the Tuvan People's Republic, which at that time was an independent country, became the first ally of the USSR, and gave 750,000 head of livestock, including reindeer, to support the Soviet Army during the war (Biche-ool and Samdan 2012). According to Natal'ya Kol (2006), from 1946 to 1950 many reindeer died of an unidentified epidemic respiratory disease. In addition, other factors contributed

[47] According to my informants, there was one herder-hunter family left in the Kaa-Khem district by 2013.

to the decline of reindeer, such as the closing of gold mines and mass collectivization of the Tozhun population.

In the 1950s, the size of reindeer herds steadily increased. Thus, in 1971, the number reached a total of 11,600 head (Kachaev 1971) (see Figure 8). According to Kachaev (1971), the final economic goal of the Ninth Five Year Plan (1971-75) was to increase drastically the number of reindeer. Agricultural specialists rigorously evaluated the capacity of the pasturelands and concluded that eastern Tyva could support up to 20,000 reindeer.

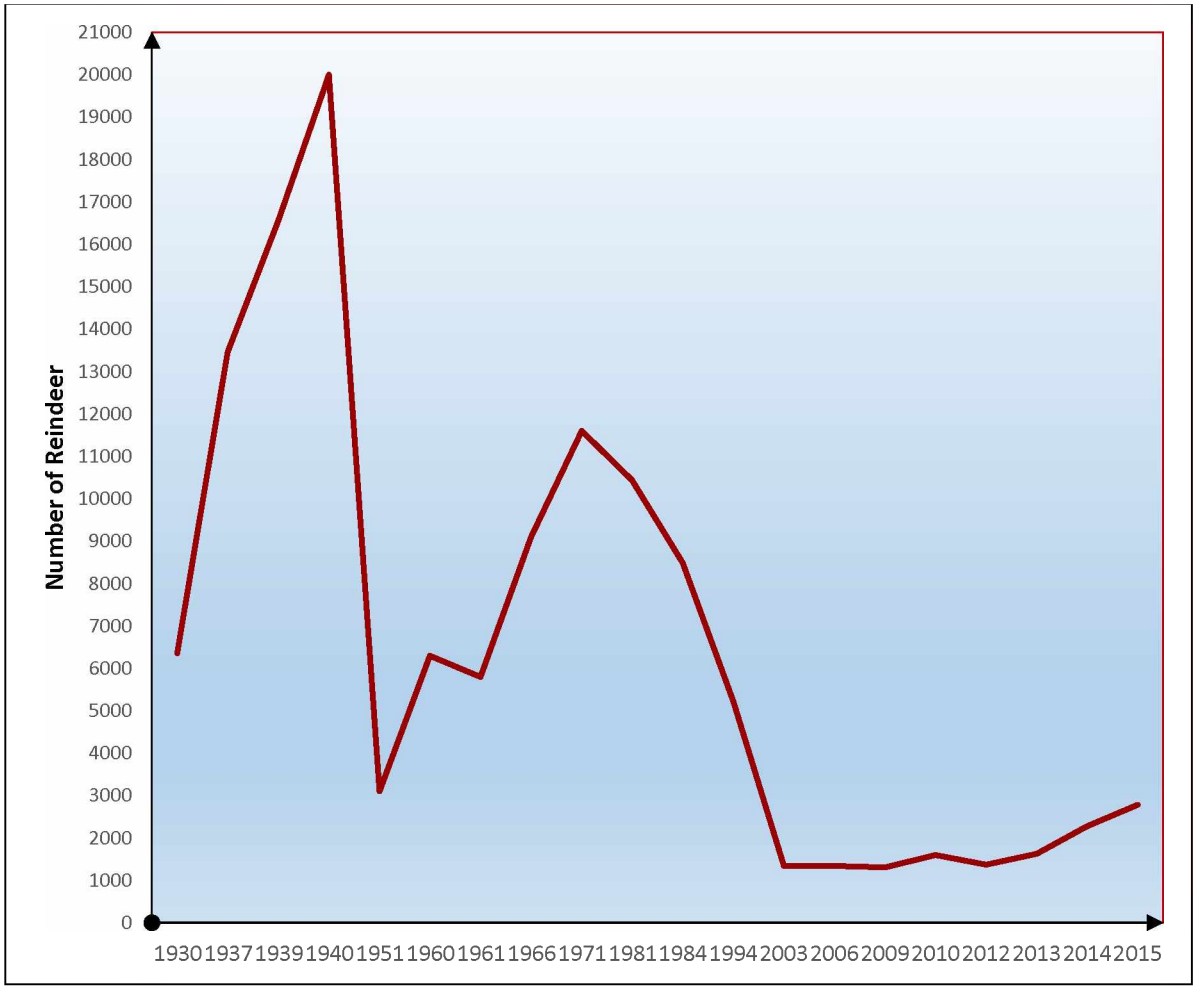

Figure 8: Population fluctuation of domestic reindeer in the Tyva Republic. (Sources: personal data, Biche-ool and Samdan 2012, Kachaev 1971, Klopov 1973, Kyzyl-ool 1971, Vainshein 1980a).

There are no official records of reindeer statistics between 1986 and 1993. I searched the Toora-Khem archive for information on the reindeer herders in relation to *kolkhozes* (collective farms) and *gospromkhozes* (state hunting enterprise) after the collapse of the Soviet Union. My

project posed a special challenge because these institutions no longer exist. The official archive was badly organized and information about *kolkhozes* and *gospromkhozes* for the period of those seven years was completely missing. I did find some useful household registration books for the village of Adyr-Kezhig. Although these books provided information only about the number of private reindeer owned by the private reindeer herders' households, they were powerful tools for comparing and contrasting the changes in the village and helping me understand the dynamics of reindeer herding from the collapse of the Soviet Union to the present. These documents, however, provide accurate numbers of reindeer in the district.

Today, the total number of reindeer has decreased significantly from the all-time high. As of January 1, 2017, the total number of reindeer in the Tozhu district was 3,330 according to the Federal Service State Statistics Service, Krasnoyarskiy Region, Khakasia Republic, and Tyva Republic. According to the agricultural department census, by 1 January of 2015, Odugen had 1,880 reindeer, and the number of private reindeer was 902. Odugen officially manages a group of nineteen herder-hunters. Fifteen of them are from Adyr-Kezhig, three live in Toora-Khem,[48] and one in Chazylary.[49] According to herder-hunters, about thirty families are involved in reindeer herding and hunting (combining the private owners and Odugen's herder-hunters). One of Odugen's goals is to ensure the future of reindeer herding and promote meat-oriented production in the district. Although the members of Odugen do not receive a salary, they are provided with government subsidies and veterinary assistance.

3.4 Social Organization of Reindeer Herding and Hunting in the Tozhu District

In the pre-Soviet period, the Tozhu kept small herds of 30 to 60 head of reindeer. According to Vainshtein (1961), only wealthy herders had herds as large as 300 to 400 head, which is a large number for Sayan-type reindeer herding. However, during the Soviet era, because socialist reconstruction happened quickly in Tyva, the nomadic Tozhu life changed dramatically. According to Davaa (2005), subject to Soviet policy, collectivization of the Tyvan agricultural sector reached its peak in 1948. By the spring of 1949, the majority of the Tozhu reindeer herder-hunters and cattle-breeders had joined agricultural *artels* (early form of collective farms), which

[48] These three families are actually one extended family.
[49] Svetlana Demkina actually lives in Kyzyl, but she still has a house in Chazylary. Her son pays a salary to the men who care for their herd.

included all their domestic animals. *Artels* were later reorganized into *kolkhozes*, voluntary co-operative units, which later became *sovkhozes* (a different form of collective farms). The *kolkhozes 1 Maya* (1st May) and *Sovetskaya Tuva* (Soviet Tuva) were established by April 1949, in the villages of Iy and Adyr-Kezhig (Prokof'eva 1954). Later, a *Toora-Khem kolkhoz* was organized in Toora-Khem. These *kolkhozes* were large organized state enterprises in the Tozhu district. The Tozhu population was subdivided into two groups: hunters and reindeer herders of the mountainous taiga-steppe zone and cattle-breeders of the mountainous taiga zone (Prokof'eva 1954, Vainshtein 1961, Vainshtein and Mannay-ool 2001). According to Ekaterina Prokof'eva (1954), the members of the Kol clan were cattle and horse breeders who also raised some crops. They were considered "more civilized" because they had greater interaction with other clans as well as the Russian population, and also because they lived in the center of the Tozhu land. Members of Ak-Choodu and Baraan-Choodu clans were hunters and reindeer herders and lived a more isolated life. During the period in which authorities issued passports to the citizens of Tyva, known as passportization, the majority of the Baraan-Choodu took "Baraan" as the family name. The "Kol" name remained the same. The Ak-Choodu chose "Ak" (Davaa 2015, Proko'eva 1954). Their administrative division was changed by the 1950s, and their traditional clan names were sacrificed to the bright socialist future.

Because the historical record provides scant information about the functioning of state farms in the Tozhu district, this research focuses more on the organization of reindeer herding and hunting in the district of Adyr-Kezhig. Almost all individuals still engaged in hunting and reindeer herding come from this village. In 1949, Kara-ool Kol suggested organizing a *kolkhoz* in Adyr-Kezhig and became its first director (Bogdanova 1962). The *kolkhoz* began as a small state collective farm organized for cattle breeding. During one *kolkhoz* meeting, the Tozhu decided to settle along the Toora-Khem River, where it splits into two distributary channels. This stretch of the place was quite shallow, allowing for riders on horses or reindeer to easily cross. It was also an ideal summer pasture land for cattle-breeders and a convenient meeting place for hunters during the fall hunting season. 29 *arat* (Tyv. "herder") families subsequently joined the *kolkhoz*. According to Vasiliy Krivdik (1993), although the village's population was not large, a small *kolkhoz* could not support all residents. In the process of collectivization, many people became sedentary, and as a consequence, unemployed. The dilemma was that the *kolkhoz* was too small to be effective, and no one wanted to work in an ineffective *kolkhoz*, in which the director changed

every six months due to poor production. According to Vasiliy Tamdyn-ool (1963), in 1949, both *Sovetskaya Tuva* and Toora-Khem *kolkhozes* owned only 400 reindeer. Prokof'eva (1954) points out that another turning point began in 1952, when the local Communist Party decided to improve reindeer herding in the district because reindeer herding facilitated hunting/trapping of fur-bearing animals, and hunting and reindeer herding worked in synergy as the two prominent economies of the Tozhun *kolkhozes*. The local academic literature (see Prokof'eva 1954, 2011 [1957]) suggests that meat-oriented production increased with the number of reindeer, however this assertion is not quite accurate. Because encouraging hunting and trapping in the taiga regions was the usual focal point of *kolkhoz* economic development, increasing the number of reindeer was a necessity to achieve this end (see Anderson 1991, Pomishin 1971). During the fall hunting season, hunters and villagers required transportation uniquely suited to the taiga—reindeer. A state animal production enterprise *(koopzverogospromkhoz)* was established in Toora-Khem with associated hunting and reindeer-herding brigades. After formal annexation of the People's Republic of Tannu Tuva in 1944, more Russian settlers arrived in the Tozhu district looking for a promising future surrounded by such rich taiga resources. The majority of hunters and trappers of the hunting brigades were Russians, who also needed reindeer for transportation during the fall hunting season.

Tozhu district was the main supplier of fur pelts in the republic. Nearly 70 percent of all pelts in the republic came from the Tozhu district. In 1944, the ban on sable hunting was removed, but the government strictly regulated the number of sable pelts that could be taken. Southern taiga districts were always headquarters of the Soviet fur industry. During a meeting in the fall of 1952, hunters/trappers from *Sovetskaya Tuva* decided to improve their rate of success by implementing measures such as elders teaching the young how to hunt, hunting extended hours as long as there was visible light, hunting of all fur-bearing animals, getting teenagers and women involved in hunting, introducing mobile selling booths, and creating competition between brigades. As a result, by January 21, 1953, the hunters and trappers sold their pelts for a total of 1,030,000 rubles, rather than the expected 1,000,000 rubles. In addition, new species of animals were introduced to the Tozhu taiga to increase hunting opportunities. For instance, in 1951, mink and raccoon were released, and in 1954, 50 beavers were released into the Azas river. In such favorable climate conditions, all these species were successfully acclimated and became widely established (Prokof'eva 1954). Mink even reached a commercially useful density. Compared to the rest of Tyva, the climate in Tozhu is comparatively mild, making it possible to grow vegetables and

grains. The *kolkhozes* introduced a new economic activity to nomads: farming of crops including barley, carrots, beets, onions, garlic, cucumbers, potato, cabbage, tomatoes, sunflowers, and rutabaga (Prokof'eva 1954).

In 1957, the Communist Party decided to send the 30,000 Komsomol members[50] to the countryside to help with economic reconstruction, including Vasiliy Tamdyn-ool, who was appointed as the director of *Sovetskaya Tuva*, and this role was crucial to the development of the *kolkhoz*. Vasiliy was a Tyva from the Chedy-Khöl district in central Tyva. He had finished a special literacy school, worked in the Tuvan Revolutionary Union of the Youth, and then became a policeman in the Ulug-Khem district. Smart and enterprising, Tamdyn-ool transformed the *kolkhoz* into viable organization. At that time, *kolkhozes* were also responsible for residential and social life in the community. Tamdyn-ool, concerned by the unemployment rate in the village, organized the hunting and building *artels*. In two years, the building *artels* cut wood and built 200 houses in Adyr-Kezhig and Iy. In addition, a public school was built in 1960 (Tamdyn-ool (1963).

While the hunting economy seemed to have stabilized, reindeer herding faced serious issues. Prokof'eva (1954) emphasizes that reindeer herding practices needed re-organization and the development of new methods in order to be viable. For instance, the Baraan-Choodu exchanged their reindeer only with the Karagas and Ak-Choodu, which put limitations on the gene pool, producing smaller and weaker reindeer. Consequences of a limited gene pool include reindeer becoming barren or having miscarriages. In addition, with an increased number of hunters, some does were used for riding. This had never been done by the Tozhu (except occasionally by families with a critically small number of reindeer). Does were occasionally used as pack animals because they could be loaded with burdens less heavy than a rider. To strengthen the gene pool, the district administration traded reindeer with the kolkhoz *Krasnyy Okhotnik* (Rus. Red Hunter) in Tofalaria.

In 1957, the *kolkhoz* had 70 cattle, 796 horses, 2,146 sheep and goats, and 570 reindeer, totaling 3,572 head of livestock. In 1959, with the effort of the new director, this number was increased to 6,120 head (Krivdik 1993). The Communist Party in the early 1960s decided to develop large-scale animal husbandry, which had an impact on reindeer herding management. The pre-existing tension and stigmatization between the Baraan and the Kol clans made the transformation from small-scale to large-scale animal husbandry very difficult. According to Prokof'eva (1954), the majority of people in Adyr-Kezhig were Baraan, former herder-hunters,

[50] Members of the All-Union Leninist Young Communist League.

and the minority were Kol, former cattle and horse breeders. The former reindeer herder-hunters were stigmatized and oppressed by the Kol. The Kol considered themselves to be living the correct herdering life. They considered the taiga an unacceptable place for cattle and horses, although herder-hunters, with small numbers of reindeer, were able to live an efficient life in the taiga. Generally, the Kol perceived the Baraan as impoverished herders who had failed to build up a large herd and could not manage their lives competently to gain wealth and property. The fact that herder-hunters ate reindeer liver raw was regarded as disgusting and intolerable, although they did not eat other raw meats. Herder-hunters were also politically weak in relation to their neighbors. Of course, the taiga dwellers also had their own stereotypes about their neighbors. They strongly believed that cattle and horse breeders were stingy and treacherous, often violating rules of acceptable behavior, which made them "taiga law" breakers. According to this law, no matter how hungry a hunter was, he was not allowed to kill a pregnant red deer or a doe with a calf because a hunter cared for the taiga and wanted to assure a continuation of resources. In other words, if we use a modern terminology, the herder-hunters considered cattle and horse breeders akin to criminals. It is indeed possible that some of the Kol people broke the "taiga law," but only a handful of "taiga lawbreakers" provoked the labeling of the entire clan as treacherous people. It is not surprising, then, that although herder-hunters did trade back and forth, the clans usually preferred to avoid their neighbors (Bogdanova 1962).

Alexandra Bogdanova (1962) states that when nomads settled in Adyr-Kezhig, the population split into two parts: former herder-hunters lived on one side of the village on Anchy (Hunter) Street, and former cattle and horse breeders lived on another side of the village, on Arat (Herder) Street. Both groups, keeping in mind stereotypes about their neighbors, avoided dealing with each other. Besides these tensions, members of the the Baraan group brought a significant amount of money to the *kolkhoz* economy by hunting, and thus considered themselves superior to the Kol. In turn, members of the the Kol clan considered themselves more civilized than the Baraan. The stigma and tension between the two groups created an unhealthy environment in the *kolkhoz*, and financial inequality exacerbated the situation. Tamdyn-ool's goal was to unite the two groups of people for the sake of the collective farm. He resolved this conflict by building a kindergarten, a public school, a canteen, a bakery, two blocks of apartments (six apartments in each block), and an office for the *kolkhoz,* on a new street called "Druzhba" (Friendship). These infrastructure improvements in the village created more social interaction between the two groups

(Bogdanova 1962). Living in similar conditions and having the same rights, the hostilities between the two groups eventually eased and today they mingle and frequently intermarry.

According to Bogdanova (1962), the transition from small-scale to large-scale production was challenging. In 1962, a *kolkhoz* meeting was held to discuss a new economic orientation. At first, many people were unhappy with this idea, and hotly debated the issue. The *kolkhoz* would be required to build barns and prepare tons of hay for cattle in winter, particularly for smaller livestock. The hunters insisted the *kolkhoz* should be focused only on hunting. Many women who supported the transition reasoned that hunting kept people occupied only two months of the year. Some men did not hunt at all, and focusing on herding would bring new jobs that would last year-round. By the end of the meeting, residents agreed to try the plan. Since then, reindeer herding has gradually become more meat-oriented, but the practice remains a secondary economic function of the reindeer, who still assist mostly with hunting. For example, in 1963, the Tozhu district sold 100 tons of reindeer meat to the state (Tamdyn-ool 1963). According to Klopov (1973), by the early 1970s, reindeer herding primarily still served as a means of transportation, allowing the district hunters to move around the taiga. Thus, by 1973, about 3,000 reindeer were used by hunters during the hunting season. Reindeer meat production also increased with more than 1,000 reindeer slaughtered for meat annually. The largest part of the collective's income came from hunting and trapping. Thus, from 1950 to 1960, all three *kolkhozes* in the district became "millionaire *kolkhozes*" (Davaa 2011, Tamdyn-ool 1963). Because the *kolkhozes* surpassed their projected production, this constituted a major breakthrough for the district's agricultural sector. Adyr-Kezhig elders still talk with nostalgia and pride about the "millionaire" era, bragging about how many pelts hunters brought in and how many reindeer they herded.

Klopov (1973) states that according to the calculations of the Soviet economists, in 1973, the procurement price of reindeer meat was much cheaper than any other domestic animal because reindeer did not require special buildings or hay preparation for winter. For example, in 1970, the procurement price for one quintal of reindeer meat was 59.8 rubles and the selling price was 93 rubles. For comparison, the procurement price of beef was 129.1, rubles and the selling price was 93 rubles, and the procurement price of mutton was 120.6 rubles, while the selling price was 118 rubles. Raising small and large livestock was not as profitable when compared to reindeer (Klopov 1973). Davaa (2015) points out that in eastern Tyva in general, only 20-30 percent of meat

production was reindeer. In 1968, the *koopzverpromkhoz* exported reindeer meat to the German Democratic Republic. The number of reindeer on state farms gradually increased until 1981.

Although the Soviets used traditional knowledge in organizing the reindeer herding economy, for the sake of economic profitability, they overlooked the type and conditions of the reindeer herding that was being conducted. According to Tamdyn-ool (1963), the reindeer herding economy, in the process of undergoing the important shift from small-scale to large-scale production, began to face serious issues. First, the management of reindeer herding was not adequate. To develop their national economy, the Soviet government implemented a series of five-year plans, *pyatiletkas*, and all state enterprises were committed to fulfilling these plans. People had meetings on a regular basis to discuss the main goals of the plan and the ways they could complete them successfully. The State Planning Committee usually prescribed a particular plan for every state farm. According to the five-year plan, productivity of fur hunting and trapping as well as the number of reindeer should increase. As a consequence of increasing the number of reindeer, pastures historically used by herder-hunters became subject to overgrazing. Herding large-scale herds of 300-400 head instead of the usual 30 to 60 head was an entirely new practice. The pastures were used without being competently managed and the herd was consequently weakened, resulting in higher incidence of disease, increased infertility in does, and decreased litter size. For instance, in 1962, a large number of reindeer began to die without a visible reason. Instead of inviting zoo veterinary technicians,[51] the director of the reindeer farm decided to change pastures, something the Tozhu had practiced before with success. When the administration became aware of the dramatic situation, they immediately invited specialists to solve the problem. It turned out that the reindeer were vitamin-deficient, which was quickly treated. Apparently, the *kolkhozes* desperately needed agricultural specialists to develop a holistic approach, which included estimating the chemical composition of pasture herbage, the carrying capacity of the pastureland, and, finally, proper management of pastureland. Second, it was necessary to study the causes of common reindeer diseases. It was impossible to develop large-scale reindeer herding successfully without first resolving these issues (Tamdyn-ool 1963).

At this time, Tyva did not have available any published information on reindeer parasites. Alexander Sulimov (1968, 1971) was the first veterinarian to study the parasites plaguing reindeer

[51] A zootechnician is a specialist who received training from a community college and who manages animal husbandry with the main goal to improve it.

specifically in Tyva. He examined 200 reindeer in the Tozhu district and reported finding three separate species of helminths. However, depending on a particular place, the parasite fauna varied in terms of presence and prevalence. For instance, the reindeer of *1 Maya kolkhoz* had the highest rate of infestation at 66 percent. Wild reindeer also were found to carry these helminths. Sulimov (1968, 1971) discovered that all Tyvan prey mammals carried a variety of helminth species. Moreover, helminths were prevalent among all hunted mammals of the mountain taiga zone. Wild mammals spread eggs of different helminth species in pastures, which led to the infection of domestic reindeer. According to Davaa (2015), in order to prevent further infestation of reindeer and increase margins between income and production costs, the administrations of state farms decided to reorganize management of the reindeer-herding brigades. However, the real turning point in the management of reindeer herding occurred when the veterinary-zootechnical service took dramatic prophylactic measures against the parasites. Veterinarians and zoo veterinary technicians examined the pastures before the seasonal migrations occurred. Only after they evaluated the pastures and approved them for use could the herder-hunters migrate to those locations. Thus, the brigades changed pastures every fifteen days in June and July and every twenty days in August and September (Davaa 2015).

Traditionally, all of the male population hunted fur-bearing mammals during the fall hunting season and continued to do so during the state farm era. The fall hunting season was a major event in Tozhu life. Squirrels and sable furs were valuable. Prokof'eva (2011 [1957]) notes that squirrels and sables were not thought of as animal-protectors or as shamanic helpers. They were just *promyslovye zhivotnye*, or commercial animals. Before the hunting season, the Tozhu would talk about the hunt, dream about it, and prepare for it. When the hunters returned from the hunt, the whole village was excited to hear their stories. Hunting fur-bearing animals provided an additional income, not only for *kolkhozes* but also for villagers. In prolific years for squirrels, an experienced hunter could get between 500 and 700 pelts in one season. People who did not work on the *kolkhozes* were often engaged in activities supporting the *kolkhozes.* The *kolkhozes* and the *zverogospromkhoz* strongly encouraged people to hunt, giving them reindeer to ride for the hunting season.

The state farms' primary goal involved meeting the expectations of their economic plan. According to the herder-hunters, hunting brigades were divided into *zvenjya*[52] (units) and each

[52] *Zveno* is a singular form.

zveno consisted of three to five hunters. Because the Tozhu usually hunted squirrels and sables in small groups of up to six hunters, this method was not new to them. All harvests were shared amongst the hunters. Especially good hunters tended to hunt alone, so they would not have to share the harvest. Collective farms were directed by the Tozhun or Tyvan administrators, who continued using this organization during the Soviet era, which perfectly correlated with the Soviet idea of a labor collective, *trudovoy kollektiv*. However, the composition of the *zveno* was not stable. Each *zveno* was assigned to a particular hunting ground and people chose with whom they would like to be in the *zveno*. Practically, more than half of the population took some part in the state farm's hunting and trapping operations. *Kolkhozes* and the *zverogospromkhoz* established a labor contract with the hunters and trappers and provided them with all necessary ammunition, food, and reindeer. If the hunters worked from October 20th to December 20th, each would receive two or three reindeer. After December 20th, the hunters used skis because the snow was too deep for the riding reindeer. During the hunt, each hunter was alone during the day, returning to the camp and other hunters only in the evening (Prokof'eva 1954).

The Soviet planners did their best to raise the economy at a rate two or three times higher than the growing rate of United States' economy (Laird 1961). In 1970, the Tozhu district administration made changes to the troubled agricultural sector, reorienting the *kolkhozes* toward livestock breeding and vegetable production for urban markets, in order to maximize economic production. This organizational re-orientation frustrated the *kolkhozes'* leaders and hunters. According to Sikachinskiy (1971), in 1971, *1 Maya* had 220 hunters, 100 of them specializing in sable hunting and 120 squirrel hunting. Each hunter had two or three Laika dogs. Despite investment in the *kolkhozes* and introduction of traps to hunters, the hunting industry quickly began to suffer. More people were required to work with livestock and be in the fields, so fewer people hunted. Low prices for vegetables and grains and expensive transportation created a disparity between production costs and food prices, making vegetable production an unprofitable business. Sikachinskiy (1971) asserted that the *kolkhoz* could double its profit if it would remain a hunting/trapping *kolkhoz*. However, the transition to meat and vegetable-oriented production over the next two decades resulted in an overall reduction of fur-production, and the "millionaire era" was over.

3.5 Do Tozhu Women Hunt?

Ethnographic studies on taiga women who participate in hunting are rare or old (Brandišauskas 2017, Petri 1927, 1928a, 1928b, 1930, Prokof'eva 1954, 2011 [1957]). Petri's studies (1927, 1928a, 1928b, 1930) on the Tofa[53] and Evenki evaluated women hunters' contributions in the late 1920s. Studies of the Tozhu usually portray hunting as a typical male activity and include only general descriptions of the division of labor by sex. Moreover, Vainshtein (1961), a leading authority, points out that a Tozhu taboo barred women from hunting and fishing. In Tyva, a deep conviction has held that women are supposed to give life, not to take it. However, Tozhu women clearly do not conform to this standard. Prokof'eva (2011 [1957]), who conducted her research before Vainshtein, asserts that the women of the Choodu and Soyan clans in the Tozhu and Tere-Khöl districts hunted small game including squirrels: "They were trusted to hunt sable during the first half of the hunting season. Women of other groups were not allowed to hunt and slaughter cattle" (Prokof'eva (2011 [1957]:191). Despite hunting being defined as a male occupation, women of these groups did hunt. In the Tozhu case, considering the challenges of life on the taiga, women's hunting serves as a risk management strategy—in the event the hunt was unsuccessful or a male hunter was hunter was unsuccessful or absent for a long time (several weeks) during the hunting season. A woman with young children would remain in the *aal* and hunt to provide the family with at least small game and birds, particularly in the winter months when other resources were not available. According to Prokof'eva (2011 [1957]), the hunting return rates of small game and birds are higher than the rates of big game hunted by males. Petri (1928b, 1930) states that taiga women hunted in the contexts in which hunting was more profitable than other economic activities. Some Tofa and Evenki women hunted because of the existing fur market in their areas.

According to Henny Hansen (1956), at the end of the 19th century, French fashion designers introduced fur garments to their fashion collections, which increased the demand for such garments in Europe and North America. Fur markets reached their peak in the 1920s and the 1930s (Mahé 2012). The most expensive fur on the Siberian market was sable, and the lowest priced was squirrel. In the 1920s, squirrel became in great demand because it was affordable even for people with a modest income. Tofa women usually hunted squirrel because of their high return rates; it was much easier to catch a squirrel compared to sable. Petri (1928b) points out that the average

[53] From here I will use the "Tofa" term instead of the old "Karagas."

price of a squirrel was one ruble and the average price of a sable was 60 rubles in the late 1920s. Hunting squirrel was reliable, and it was easier to kill 60 squirrels than to kill one sable. Taiga dwellers were eager to acquire goods produced by cattle and horse breeders and goods of foreign manufacture. Women sold or traded fur pelts to buy desired food or household items. Girls and boys usually started to hunt at age eleven to twelve and had become experienced hunters by age fourteen. Some women did become prominent hunters. In some cases, women had to hunt if the family did not have a male provider. If they married and had children, they often stopped hunting, instead focusing on providing child care.

The Tofan data is consistent with the Tozhu case. Additionally, a hunting couple brings more meat and fur to the household economy than does a man hunting alone. At the same time, women participating in hunting do not exempt themselves from other Tyvan beliefs about women, the most common of which is that a woman can spoil a hunt. If a firearm or shotgun is on the ground, a woman cannot step over it. The owner of the firearm will experience disaster (for example, bad luck while hunting) if it happens. For instance, when I lived in the neighboring Biy-Khem district, which has similar hunting traditions, I heard old hunters advising young hunters not to have sexual intercourse with their wives the night before hunting because it could lessen their good luck.[54] According to Petri (1928a, 1928b), when Tofa men were getting ready for the hunt, women were supposed to be inside the dwelling so as not to meet men. Otherwise, a hunter would lose his good luck. Since this belief was documented among the Tofa, I assume that the same belief existed among the Tozhu.

Prokof'eva (2011 [1957]) also stresses that Tyvan folklore reflects women's hunting. For instance, a woman—a mother or a relative—plays an important role in teaching a boy about the hunt, animal behavior, and the environment. However, as it was mentioned before, the state farms encouraged women and teenagers to hunt fur-bearing animals, particularly squirrels. Prokof'eva (1954) points out that they usually sent women to hunt from January to April. Some young women were quite impressive hunters, such as Cheziban, An Tingme, and Ak Okhandy from the *kolkhoz 1 Maya*. Each killed six sables. While this result sounds low, at that time the commercial density

[54] It important to stress that Biy-Khem is a part of the taiga zone and has similar beliefs to the Tozhu district, although research on Biy-Khem is limited. This fact remains ignored by local scholars.

of sable was not high, and there were so many hunters in the district that killing six sables took real skill.

In my fieldwork, people who spoke about hunting would sometimes mention female hunters of the past and present. If I told my informants about a quote from Vainshtein's claim that Tozhu women did not hunt, nearly everyone would hotly protest: "This is not true! Who wrote this? What does this Russian know about us?" As I have noted, though men and women of a particular hunter-gather-herding society are prescribed roles that differ, women of the taiga zone hunted not only for subsistence but also to contribute to the economy of the household by hunting fur-bearing animals. Prokof'eva (1954) informs that the Tozhu women hunted only squirrels in the 1950s. There were several dozen female hunters in the Tozhu district during the Soviet era: Seren Baraan (Figure 9), Elizaveta Kenden, Myrlaa Baraan, Seren Dorzhu, Surgakchi Kol (Figure 10), and Myrlaa Baraan. The late Elizaveta Kenden and Surgakchi Kol are both from Adyr-Kezhig. Elizaveta was one of the best among both male and female hunters in the village. At 78 years old, Surgakchi is the only female hunter left alive in Adyr-Kezhig.

Figure 9. Seren Baraan. Photo by an unknown photographer. The permission to reprint this photo was given by her daughter, Zina Namnyn.

Figure 10. Surgakchi Kol. June 2015. Photo by Tayana Arakchaa.

To my surprise, however, the villagers did not know that she had hunted in the past. Everyone recalled Elizaveta and other women's names with pride, but nobody mentioned Surgakchi. Residents told me that all the female hunters had passed away. Even a school museum worker showed surprise when I told her about Surgakchi. I discovered her previous hunting experience accidentally when I interviewed her. When I arrived in Adyr-Kezhig in the summer of 2015, I wanted to interview elders (life expectancy is short among the Tozhu, and today only a few elders are left). The following is a segment of the interview conducted with Surgakchi about her life experiences:

Tayana: Could you tell me about your life, please? Were you raised in a reindeer herding family?

Surgakchi: I am from a reindeer herding family. We lived in Odugen Taiga. My parents owned 60 reindeer and 15 horses before joining to the *kolkhoz*. When I was 12, I was sent to the Adyr-Kezhig school.[55]

Tayana: Have you ever been a reindeer herder?

Surgakchi: I was a reindeer herder for twelve years.

Tayana: Have you ever hunted?

Surgakchi: Yes, I hunted. I learnt to hunt when I was twelve. After I finished school, I was assigned to work as a cattle-breeder in the *kolkhoz* farm. Then I continued to hunt when I was 20. The *kolkhoz* sent me to hunt squirrels.

Tayana: So, you learned to hunt when you were 12. Did you continue to hunt after twelve?

Surgakchi: Yes, I did. I hunted during the school breaks when I came back to the camp.

Tayana: How many female hunters were there at that time?

Surgakchi: Many. At that time there were probably ten women hunters in the village. Not many. My husband and I went hunting together for several years.

Tayana: Did the *kolkhoz* assign the hunting territory for you?

Surgakchi: Yes, it did. We were a part of the *zveno* consisting of five-six people. No camp was there; we lived just by the fire. We did not stay long because it was too cold. Each of us obtained hundreds of squirrels.

Tayana: How long did you stay in the taiga?

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[55] Boarding school.

Surgakchi: We spent two weeks in the taiga.

Tayana: Did you take Laikas with you?

Surgakchi: No Laikas. We had ordinary dogs. I had one hunting dog as did my husband. We hunted within the *zveno.* We worked together with Seren Baraan and her husband in the same *zveno.* Seren was a pretty good hunter. Her husband could not even compete with her. She was even the best among the men. Compared to her I was not so good. (Surgakchi Kol, June 20, 2015)

As Surgakchi said, she was not a great hunter; likely that is why she was not as renowned as Seren was, and remained unknown to her village so many years later.

Actually, Sayzana Kol was the first female hunter I met in the summer of 2012. As we traveled through the taiga, we had time to talk about many things. I learned that Sayzana started to hunt in 2009 when she was 46. When Sayzana was young, she was never interested in hunting because she spent her time taking care of her two daughters. Her mother also did not hunt. When the daughters grew up and went to study in Kyzyl, Sayzana had a great deal of free time. Her oldest daughter began studying nursing at the Medical College. A year later, her second daughter was accepted in the biology department at Tyvan State University. Since there was no financial aid or grants for students in Russia, the family faced a severe financial burden to pay for the education and living expenses of both daughters. In addition, there was a problem with housing. The limited space in the dorms meant that there was no room available for her daughters. Beyond that, there was a serious shortage of affordable housing in Kyzyl because of high rates of migration by people from rural areas to the capital and a lack of apartment construction in the city. Today, almost half of the republic's population lives in the capital; which is why the city's population is increasing quickly and rent is rising so rapidly. The rent is even higher than in a big city such as Krasnoyarsk, with a population of more than a million. Sayzana had to rent a one-bedroom apartment for her girls to live in while they attended college.

To pay for her daughters' education, Sayzana took an unusual path. It had become boring for her to stay alone all day in the log cabin during winter. At that time, sable was already in demand on the market, so Sayzana decided to try hunting. Growing up in the *aal*, she had already obtained general knowledge about hunting. She only needed practical experience. Sayzana went on hunting expeditions with her husband and Anoka, who taught her about hunting. It became a passion after she killed her first few sables. She learned quickly because she technically already knew everything she needed to know about it: dog behavior, wild animal behavior, and the

characteristics of the environment. She did need to practice shooting. It took three hunting seasons for her to feel confident about herself as a hunter. Sayzana obtained eight sables during her first hunting season in 2012, and Anoka considered her a diligent hunter who could even compete with the men. Through her own words, I illustrate the importance hunting has come to hold for Sayzana:

> I became passionately fond of hunting. I remember well my first excitement when I killed my first sables. The passion of hunting is so great. I am excited to go to the taiga and hunt. This season I want to harvest as many sables as I can. I cannot hunt musk deer because the chasing speed was too high for me. Last winter we went with Andrey together to hunt musk deer. It was interesting. But this winter I decided to try to kill a musk deer. The only problem is that I do not have a good sense of navigation. I think in general we women have bad navigating skills in the taiga compared to men because we do not go into the taiga often as men do. We just stay in the *aal* for all day. I am okay in navigating except when it is snowing. Women from the village have really bad navigating skills because they usually spend their time in the taiga only in summer. Do you remember Galin-Kys who was lost in the taiga?[56] If she had had her reindeer, she would not have become lost. She was lost because she lived in the village and she did not have good navigating skill. That is why she was lost. Anybody can be lost in the taiga when it is snowing. It is hard to see because it is so hazy, and all the trees look similar. I turn around and everything looks similar. I do not have any sense of navigation. And it is getting dark earlier than usual. In this case, I am lost in the taiga. But I am not afraid of being lost because I have my reindeer. With reindeer you will never be lost. I just loosen the rope letting him know that he can go home. And he brings me home. Reindeer are never lost. (Sayzana Kol, December 4, 2014)

In Summer 2015, I met another women hunter, Rozalia Khomushku (Figure 11), in Adyr-Kezhig, who was a cattle breeder at the boarding school's *aal*. After the *kolkhoz* became defunct, she and her husband were unemployed. Her husband came from a reindeer herder-hunter family. In 2004, they joined the *aal* of her husband's younger brother in Serlig-Khem. Rozalia was 38. The brother had thirteen reindeer and one horse. In 2008, he sold his reindeer because he needed money, and the couple had to go back to the village. During four years in the taiga, during winter time, they stayed close to the "Oina" gold mining company where they had neighbors, *at inek kadarchilar* (horse and cattle breeders), who were relatives of her husband. Rozalia's sister-in-law, 40-year-old Pyzhyra, had hunted squirrels and sables since her early age. When musk deer glands came into demand, Pyzhyra started hunting musk deer as well. She taught Rozalia how to hunt. Rozalia and her husband had a young dog named Churek (Heart), who hunted only sable, ignoring squirrels.

[56] Galin-Kys is discussed in more detail in Chapter 4.

Figure 11: Rozalia Khomushku. June 2015. Photo by Tayana Arakchaa.

Here Rozalia vividly describes how she started to hunt:

> One day we were at our log cabin and my husband saw a sable, "Look, a sable!" At that time I did not know anything about firearms. "Where is the sable?" I could not see it. It was close to us and we chased it. When I visited our relatives, cattle breeders in the neighboring camp, I told them about it. My sister-in-law said to me, "Learn how to hunt, *chemgezi"* [younger sister-in-law]. I said, "I have never held a firearm in my arms. I am afraid of it." She said, "That is okay. Here is a shotgun, you hold it like this and reload like this." Pyzhyra explained to me everything about a shotgun. On the next day I took the shotgun and went to hunt by myself. I took our dog. I shot the first sable and killed it! But I was lost there. I could hardly come back to the *aal.* I failed to notice the features of the landscape, and did not know how to find the way back. I came home only in the evening. I said to my dog, "Let us go home, Churek" [with a compassionate voice]. But the dog thought that I was hunting and continued to track sables there. I followed after it. At the end I was completely exhausted and even fell down. I said begging, "Let us go home, Churek" [with compassionate voice]. Finally, Churek brought me home. I went again to my sister-in-law and told her about my experience. She told me, "Look at the tops of the taigas; here is one taiga and there is another taiga. Remember them well. Look attentively around you, remember everything, and you will learn how to find your way home. Also, look attentively around your log cabin." That is how I learned from her how to orient myself in the taiga. In the beginning, I did not know anything, that is why I was lost there when I went the first time. I had never been in the taiga before. Then we began to hunt together with my sister-in-law. We even chased musk deer together. It was fun. We walked; we did not ride [a reindeer or a horse]. I was never interested in hunting before. (Khomushku, June, 2015)

Rozalia's husband's brother, with only a small herd of reindeer, had a limited number of riding bulls. Each man in the household needed to have three riding bulls in order to switch them every day. If he had only four or five riding bulls, the bulls needed a break at least every three

days. Needless to say, Rozalia did not have access to riding bulls during the hunting season, but she had access to a shotgun. She learned to hunt without riding a reindeer, which is more challenging and requires a lot of effort. Her oldest daughter looked after her youngest daughter. Rozalia killed fifteen sable during her first hunting season. During the second season she harvested twenty sable. She often went on hunting trips with her sister-in-law. They together chased musk deer, and were able to kill two to three musk deer a season. When the couple moved back to the village, Rozalia continued to hunt with her husband in the vicinities of the village. They stopped hunting in 2013 because they were babysitting their grandchildren. In 2014, they both got jobs as horse and cattle breeders at the boarding school, which owned ten cows and four horses. Anna Soldatova (2016) states that the boarding school housed 20 children of herder-hunters in 2016. Rozalia misses hunting a great deal and the hunting excitement, but the family needed to earn money on a regular basis in order to help to raise their grandchildren.

It would be strange if the Tozhu women did not hunt in the taiga. Killing animals for subsistence income is a key part of Tozhu life. Women are used to seeing skinning, slaughtering, and butchering animals from an early age. They clean the intestines and the stomach of reindeer or the intestines of bears to make blood sausage. This dirty task would probably make any person ill who has never worked with guts, gore, and animal feces. These women often cook food with different kinds of game meat. They become familiar with firearms in their early childhood, and they know the safety rules for handling them. They are used to seeing blood, and they are not frightened of killing game or making the second shot to finish an animal. Male relatives or husbands never push their children during hunting trips, and such trips become a fun bonding experience for them. Children always want to go back out into the taiga. They become educated on how firearms work, how to track animals, and how animals behave—all activities that are paramount for success in the hunt. Children start practicing these skills at a young age, and this practice gives them excellent experience later on. In the past, they usually started learning to hunt at age eleven or twelve. There is no difference in hunting capabilities between girls and boys at this age. Today, children go to school in the village, and this age of learning sometimes starts later. Children do hunt on regular basis after they finish school.

Obviously, women can hunt; they did so in the past and continue to do so nowadays in the Tozhu district. During the Soviet era, women from both groups, taiga dwellers and herders, were strongly encouraged to hunt fur-bearing animals. Women of all ages participated in hunting in the

past, and some became prominent hunters. Today women of different backgrounds hunt for sable and even musk deer. Although they can kill squirrels or birds for meat during hunting trips, they do not hunt for subsistence. They hunt usually in an economic context, in which hunting brings higher return rates—for money and barter—in comparison to other economic activities. Harvesting sable pelts and musk deer glands are the main means of income of the Tozhu. Commercial density of sable became high during the last four years, as small-sized prey has been more reliable and easier to catch. The Tozhu sell or exchange these commodities for food products and other goods. The number of women hunters remains quite small, but with adequate access to rifles or shotguns, their number could increase (as well as the number of male hunters). Because of severe unemployment and lack of resources, the majority of people cannot afford to buy firearms. Women among herder-hunters theoretically have access to means of efficient hunting: they own working reindeer and dogs. However, another problem has arisen: only a few women are left in the taiga.

Colonial contact swiftly and dramatically altered traditional gender relations by effectively transforming indigenous cultures. Thus, during the years of the imposed Soviet system, women in reindeer herding societies usually had only one, single job opportunity: to work as a tent worker, or *chumrabotnitsa*, and that was the only way they could stay with their husbands in the reindeer herder camps. Their main duties were cooking and washing for a brigade of reindeer herders. They were not considered as reindeer herders or even a *pomoshnik*, an assistant to reindeer herders, because reindeer herding was considered an exclusively male activity by the government. Certainly, men and women had different roles, but women's activities were viewed as less important by most researchers. Only a few women had an opportunity to stay with their family working as a *chumrabotnitsa*. Piers Vitebsky and Sally Wolfe (2001) emphasize the importance of women's roles in a reindeer herder camp and point out that "the erosion of the old *partnership* between men and women in decision-making and running the camp and herd is a third major break with tradition" (Vitebsky and Wolfe 2001:86). Today, the job of *chumrabotnitsa* is low-paid and unattractive to the majority of women in the Russian north. They do not want to work in the tundra or taiga. As a consequence, some brigades have to spend long periods of time without women. Wives usually have jobs in the village and take care of young children who attend schools. They join their husbands only during summer breaks. Thus, "most herders live the greater part of their lives in a state of enforced celibacy" (Vitebsky and Wolfe 2001:86). An additional result is that

this makes it unattractive for young men to want to be herders, as they do not want to spend their lives without meeting women.

Vitebsky and Wolfe (2001) point out how this imposed system caused a breakdown in traditional social organization. Moreover, the Soviet management of reindeer herding made women invisible in the reindeer-herding economy all over Siberia and the North. It diminished women's lives in the camp in terms of authority and movement across the area. After state collective farms within the system of brigades and tent workers dissolved, the shortage of women in the camps became an issue in the taiga as well. Today only three women permanently live in the *aals* of Serlig-Khem. It is unappealing for Tozhu women to live in the taiga without modern conveniences. They prefer to stay in the village and then visit their husbands or parents during summer vacations.

Joachim Habeck (2005) gave an account of how women themselves perceive their position among the Komi herders. These women feel they can hardly move more than a few hundred meters from the camp. They cannot enjoy the sense of freedom as men do, who can roam freely wherever they want in the tundra. Women also complain that they do not have as much access to reindeer for riding as the men do, even when the women must go to the village. They spend all day in the camp performing monotonous tasks such as cooking and washing dishes for a whole brigade of males. Women have passive positions in the camp, and men mostly ignore their interests. Moreover, for women, a tent camp has become an "uncultured" place, lacking the modern conveniences of civilization (Habeck 2005).

It is necessary to note that in the taiga both men and women have equal access to resources, although women spend almost all their time at the camp. In contrast with female herders of the tundra, Tozhu women have a comparatively greater freedom of movement. They have their own working reindeer, and they ride them whenever they want. It usually takes them about fifteen minutes to harness a reindeer and then go for a ride. By contrast, in the tundra, women depend more on men because harnessing reindeer to a sledge takes several hours, and only the men can complete this challenging task (Habeck 2005). Although some Tozhu women hunt sable or musk deer, many women stress that the men orient in the taiga better than women because they spend more of their time there. Similarly, a recent study by Kirill Istomin and Mark Dywer (2009) demonstrates that Nenets women have worse navigating ability because of their reduced mobility in the tundra.

Earlier 20th century ethnographic accounts mention that women migrated by themselves, leading reindeer caravans during the hunting season while the men went on hunting expeditions. Women knew their territory in detail, and some even moved without firearms, unlike their husbands who never left the camp without firearms. It was the women's task to find, saddle, load, and mount reindeer while at the same time looking after the children. Women had strong orientation skills in the landscape, where they would have to meet their husbands and other people. If the path was washed by the river, they had to change the direction. They could find good pastures, water, and firewood.

Today, women recognize that some women have comparatively better geospatial orientation; others have worse sense of direction, depending on their life experiences and particularly if they have grown up in a reindeer herder-hunters' or cattle-breeders' family, as well as the amount of time they have spent in the taiga. Women typically rely on reindeer or dogs not only as means of transportation or hunting accessories, but also as a reliable means of wayfinding. With the help of these animals, women can feel confident in their route and are never lost in the taiga. These taiga hunting partners are valued not only for their working skills but also for their loyalty to humans. If a rider falls off a reindeer, then the reindeer stops immediately and waits for the rider to remount before continuing the ride. If a dog leaves the hunting site, it generally comes back to the owner.

Following Vitebsky and Wolfe's call to test the hypothesis that "women are 'sacred custodians of the earth'," in Siberia (2001:81), I view women as "sacred custodians of the taiga" in the Tozhu context. Without them, the taiga itself becomes an orphan. The disappearance of women affects all aspects of the life of herder-hunters living alone without women in the taiga. A key defining feature of animistic societies is that every single part of an animal is consumed or used, and nothing is wasted (Ingold 1994, Fijn 2011, Serpell 2005). Respect of a *mal* (domestic animals, herd) means that animals should be treated with particular care. Animals are valued not only by not wasting any parts of an animal, but also by milking them. Women in *aals* are the main figures responsible for providing this particular care to animals. During my fieldwork in summer of 2013, I stayed at the *aal* of Sergey Kyrganay, an old widower who lived with his youngest son, Danil. These herder-hunters had several does, but Sergey did not want to milk them as he was not willing to be involved in a traditionally female task. Only Danil occasionally milked the doe to have tea with milk, which was often not enough to make *suttug shay*, salty milk tea. There was

thus no milk, yogurt, cheese, cottage cheese, or whey at the *aal,* which greatly reduced our food choices.

In the mornings, I usually cooked gruel from millet or buckwheat, and I needed milk for cooking. I asked Danil to teach me to milk a doe: and he was quite happy to do this. This process turned out to be a challenging task because the majority of the does had never been milked before, and they were nervous and impatient. In addition, we got up late (at 8 am), and there were already many gadflies bothering the milking does (and us), forcing them to move from side to side. Once, while I was milking, the doe moved, and I dropped a cup with milk. To my disappointment I had to start milking again. I did not have any experience with milking, and the process went very, very slowly, and resulted in pain in my back. For the sake of my back, I had to quit this task. In all honesty, nobody was taking the responsibility to milk the does and take care of does and their calves. I am not saying that Sergey and Danil failed to look after their reindeer; but they could not, and I could not step in and provide the care a Tozhu woman would have given. I had earlier seen how Sayzana and Vika milked their does and took care of their animals, how they looked with admiration at calves suckling their mothers. I could hear their exclamations of joy, akin to that of young children: "*Unyu-nyu-nyu-nyuy*." During the day, the calves were tied to the stakes, and does roamed not far away. In the evening when it was time to milk does, the women would give them salt to catch them for milking. After milking a doe, they would let her return to her calf. Calves had enough time to nurse and find forage during the night. In the morning, women again caught the does for milking and tethered the calves. During this process, women were constantly checking the health condition of does and calves and noticed immediately if a calf needed treatment for a horn that had broken or a wounded eye, injuries that were not uncommon in the taiga. A doe who limped, could be showing the symptom of one the most common reindeer diseases in summer, *kopytka*, foot rot, caused by the bacterium *Fusobacterium necrophorum*. Herder-hunters watched a doe for a couple of days to see how the condition progressed. If the limping worsened, they would give injections of penicillin or bicillin for three to five days, or as the veterinarian recommended (Arakchaa 2014). Giving the men credit where credit is due, they also watched their animals attentively, especially during hot summer days when reindeer experience severe harassment from insects and become vulnerable to disease. Although the men sometimes would help catch does, women worked with bulls, does, and calves, and would generally see right away

if something had gone wrong with the reindeer. Everything would be noticed immediately by these attentive custodians of the taiga.

3.6 Commodities, Barter, and Trade

Trading pelts of fur-bearing animals with Chinese and Russians was a booming business in the 18th century. Initially, in the 18th century, the Tyvan population had to pay tribute in the form of squirrel pelts to the Chinese colonizers. Local administration was responsible for collecting pelts from the population. According to Turchaninov (2009 [1915]), a poor Tozhu paid five squirrels, a Tozhu of average income paid ten squirrels, and a wealthy man paid fifteen squirrels. Although the most popular fur pelts were gray squirrel and sable, all types of fur were in demand, including fox, lynx, ermine, wolverine, ferret, and otter. These animals were plentiful in Tyva. Thanks to the Chinese and their neighbors, as well the French, who used musk deer glands in medicine and perfumes, this commodity became highly prized and brought a high price as well. The Tozhu had once hunted musk deer only to meet their subsistence needs. When they became in high demand on international and national markets, they started to hunt it for money. Russian influx to Tyva made the harvest of fur-bearing animals even more intense. Pavel Ostrovskikh (1927) states that, according to the agreement between China and Russia, Russians were not allowed to build any buildings in Tyva. However, Russians opened trading posts anyways and gave the Tyva and Tozhu various goods in exchange for pelts. The prices for traded goods were much higher than Russians paid for them, and the values of pelts were less than on the market. Thus, the Russians prospered and the Tyva were left impoverished. Ostrovskikh (1927) relates the enormous debt of one of the reindeer herding communities, as told by a Tozhu named Kel'dir:[57]

> Our rulers are in deep debt to Russian traders. The *ogurda*[58] are in debt of 2,000 squirrels to kazak Sadovskiy.[59] Two deceased *ogurdas* had debts of 15,000 squirrels. The first one died from Russian vodka, the second one, his son, died from a bad disease. Who will pay the debts? All these debts were put on the whole *khoshun,*[60] and every hunter paid it. Our *kambu* has a debt of about 3,000 squirrels. Where do we find justice? Also, the *changa*, the *djilan*, and the *kundu* are in debts.[61] Who pays these debts? We, the common people. (Ostrovskikh (1927:10-11)

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[57] Considering that Ostrovskikh traveled to the Tozhu district, he wrote mainly about it and the Tozhu.
[58] The rulers of the district.
[59] One squirrel pelt cost 10 kopeek.
[60] District.
[61] *Kambu* [*kamby-lama*] means lama, the main lama. The *changa*, the *djilan*, and the *kundu* are different heads (at lower levels) in the district.

According to Kel'dir's statement, the total debt of their three *ogurdas* and the *kambu* was 20,000 squirrels. If added to the debts of the *kambu*, *changa*, and the *djilan* (more than 6,000 squirrels), the totals debt of the community was 26,000 squirrels, in other words 260,000 rubles, a huge amount of money at that time. In addition, each family had their own individual debt. It was not easy for the community to get out of these debts; all these people could not come close to paying them off during their lifetimes.

The 1920s was marked by the worldwide renaissance of fur fashion. By the early the 20th century, because of overhunting, the sable had reached the verge of extinction in all Siberian regions. The Russian tzar implemented the law protecting sable population in Siberia. Barguzinskiy Zapovednik was created as a natural sable farm in the Irkutsk province. From February 1913 until October 1916, a sable hunting ban was put into force in order to preserve the remaining population (Agarkova 2009). The 1950s was another decade that could be described as a time with a passion for fur fashion (Cudlipp 1978). Luxurious mink, chinchilla, sable, fox and less pricy marmot and mouton-processed lamb furs were extremely popular in the West (Olian 2002). Fur trends could be seen in Hollywood, where female beauty was defined by fur garments; overall, movies contributed a great deal to promoting fur fashion. The 1950s craze for furs eventually reached the USSR, which was ordinarily quite resistant to western fashion trends. Typically, less expensive fur such as squirrel, rabbit, and karakul lamb was fashionable and available to the masses of the proletarian market. Mink was available only for the communist elite and celebrities. With the main targets of sable and squirrel, the state turned reindeer herding into fur-oriented production, which was then integrated into the international fur trade. The ban on hunting sable was removed in 1955, and Soviet hunting brigades began to search for this valuable brown-colored animal. The supply of fur-bearing animals progressively decreased as the number of hunter-trappers increased. Although the commercial density of squirrels remained high, the commercial density of sable was quite low. The highest number a hunter could harvest was ten sables for a season. The situation with musk deer was different; however, as it was not in demand for the Soviet markets.

The situation with musk deer was different. While it was not popular during the Soviet era, demands for sable pelts and musk deer glands skyrocketed in the 2000s as collective farms disappeared. People lost jobs, and many sought opportunities to earn additional income. During

this post-Soviet period of transition, reindeer herder-hunters endured hardships. No salaries were paid to the reindeer herders and nobody brought food to the taiga, so people began to starve. Herders were not just struggling financially, but also emotionally. Many of them, broke, had to slaughter their reindeer to survive. Some people were too attached to their animals and they could not kill them; they left them in the taiga and returned to villages. Despite the economic challenge, some herder-hunters overcame the worst of life's hardships and endured the hard times. With fur and musk gland bartering and trading, they have made a living and continued to practice their traditional way of life during the last eight years and have increased their hunting. Large-scale herds eventually melted into small-scale herds. Today, people purposely keep 40 to 60 reindeer because this number is enough to provide a household with transportation, milk, and milk-based products while still remaining manageable.

Donahoe (2003) states that market activities related to animal parts are a part of "grey market" and that grey market activities boomed in Kyzyl in the early 2000s. Today, the grey market still operates in the downtown area in a small spot close to two open-air markets. There are some *perekupschiki* (resellers) there, with signs hanging around their necks, offering to buy gold, elk antlers in velvet, musk deer glands, bear gall bladders, elk genitalia, sable pelts, and other fur pelts. Animal parts are exported through different channels to China and Korea. Fur pelts of high quality end up at the International Fur Auction "Soyuzpushnina" in Saint-Petersburg. Authorities control hunting by requiring hunters to obtain a license and establishing a capture quota, set for each species. According to the law, it is illegal to sell animal parts without a valid hunting license. A *perekupschik* must have a license to sell those animal parts. In fact, the law prosecutes only hunters without a license. The demand for animal parts is increasing because the profits are great, and many want easy money (Donahoe 2003).

As demands in animal parts has increased for the last several years, herder-hunters switched from mainly reindeer herding to hunting. Hunting during the fall hunting season is their major economic activity.[62] In general, the Tozhu change their economic orientation from reindeer herding to hunting during this period of time, when they will be continuously hunting for animal

[62] The fall hunting season, as the government officially calls it, is not a set time period. The season period varies from province to province as well as year to year. For instance, the fall hunting season in the Tyva Republic started on the 20th of October and ended the 15th of February in 2014.

parts for about three and a half months. This switch during the hunting season influences their interaction with their animals—including reindeer, dogs, and horses.

In the fall, herder-hunters migrate with their herds to lower pastures in the taiga, until winter sets in. This is the right time to castrate bulls and to cut the antlers of bulls and working reindeer. Antlers grow very fast and achieve their full size in the fall. Although both male and female domesticated reindeer have antlers, some of the wild female reindeer who live in the lowland areas of Tofalaria do not have antlers (Mashkovtsev 1940, cited in Pomishin 1990). The main reason to cut reindeer antlers is to prepare for the hunting season. First, large antlers disturb a rider. Second, they add up to five kilograms for working reindeer. The ideal weight of a rider should not be more than 60 kilograms. The bulls' antlers are cut to prevent the reindeer from hurting each other during the rutting season. Other reindeer are left with their antlers, and they eventually shed them once a year.

After the collapse of the Soviet Union, reindeer herders including Tozhu herder-hunters, became involved in a new economic activity—*panty*[63] production (Stammler 2004), including the Tozhu herder-hunters. Helicopters with foreigners, Chinese and Koreans, started to fly out to every *aal,* offering to collect antlers. Sometimes two helicopters would fly to each camp. That is how the *panty* rush started in the Tozhu district. The Tozhu agreed to cut antlers for *panty* business because it was an obvious quick profit. However, this action had bad unexpected consequences for them. After they cut the antlers, reindeer became weakened and many died. During this five-year *panty* rush, the total number of reindeer decreased by a third. Later, herder-hunters realized that the cutting had been done incorrectly. They traditionally cut the antlers and left a short piece of them, but for *panty* they were asked to completely cut entire antlers. After this negative experience, herder-hunters refused to take the risk of cutting the antlers for *panty*. Stammler (2004) points out that *panty* is highly risky and unstable business. It might work in the context of tundra reindeer herding with a hundred or thousand head, but it is not welcome anymore in the Tozhu district. With their small herds, the Tozhu cannot afford to lose any reindeer.

During the last five years, locals in the Tozhu district seized the opportunity to make a quick profit from the grey market, operating in the main village of Toora-Khem. Animal products were purchased from herder-hunters and villagers, mostly sable pelts and musk deer glands, and resold to *perekupschiki* in Kyzyl. There were three *perekupschiki*: a *koopromkhoz* (Rus.

[63] Velvet antler.

cooperative enterprise) and two businessmen, each of whom owned a grocery. The quicker they resold, the more money they received. For instance, resellers bought a sable pelt for 2,000 rubles and resold it for 3,000 rubles to *perekupschiki* in Kyzyl. This 1,000-ruble profit is good compared to the prices in Moscow and Saint Petersburg.

Herder-hunters would prefer to deal with Kyzyl *perekupschiki* directly to get a better arrangement, but going to Kyzyl and coming back to the *aal* would take both time and money. Nobody wants to lose valuable time during the hunting season. In addition to *perekupschiki*, another important reseller operates in the Tozhu district, a Russian *kommersant* (merchant-trader) from the neighboring district.[64] In contrast to other *perekupschiki*, this *kommersant* has established a successful trade and barter system with herder-hunters over the last twelve years. He resells all sable pelts and musk deer glands to *perekupschiki* in Krasnoyarsk, who take the best pelts directly to the Saint Petersburg International Fur Auction and sell pelts of less quality to the Asian *perekupschiki*.

Sayzana plays an important role in the trading and bartering of sable pelts and musk glands with the *kommersant,* with whom she has established a good partnership. Sayzana is not just a regular female herder-hunter; she has a strong personality and leadership skills. As a leader, she is quite assertive and persuasive. I could see her in management or other supervisory positions in urban settings. Sayzana could have succeeded easily there if she had had access to a higher level of education. She always asserts that her husband is the head of the family, but in reality, she functions as the actual head. Effectively, Sayzana is an *éminence grise* of the Serlig-Khem region. She makes important decisions concerning what and how many goods the *kommersant* should bring, and when he should bring them. Sayzana is a powerful decision-maker who operates unofficially and wields great power in the taiga. What would the taiga dwellers do without this woman advocating for them?

Fourteen years ago, Sayzana and Andrey went to the Kharal River to fish. There they met the *kommersant* with his father; they were also fishing at that spot. Because of the remoteness of the place, the probability of meeting other humans besides herder-hunters was very low. The couple talked to them and found out that the *kommersant* had his own grocery store in his village. Smart Sayzana suggested that he bring food in exchange for sable pelts and other necessary goods

[64] Because of the nature of his business, this trader prefered to remain anonymous. I will refer to him as *kommersant*.

during the fall hunting season. The *kommersant* agreed. The *kommersant* was a true taiga person that loved hunting and fishing. He knew his own district well, and he quickly gained knowledge about the Tozhun taiga. In addition, he learned Tyvan and could say some words in Tyvan. His wife grew up among the Tyva and she spoke Tyvan fluently. She accompanied him once on a trip, and hunter-herders met her during the trading/bartering process. She was friendly and sociable. The herder-hunters noticed that she was more Tyvan than Russian, and her Tyvaness in turn earned respect and trust for the *kommersant.*

Currently, trading and bartering with the *kommersant* is the best option for herder-hunters because he brings food to the taiga. It would be difficult to bring food from the village because herder-hunters cannot bring much on a reindeer or a horse. The *kommersant* rebuilt a huge truck, called *samodelkin* (literally self-made) truck by reindeer herder-hunters, using two Russian trucks (a ZIL 157 and a GAZ 66). His truck is reliable for long expeditions in the freezing taiga, particularly in the extreme winter climate when the temperature can drop to -40 degrees Celsius. The *kommersant* comes to the taiga two or three times a year, at the beginning of the fall and at the end of the hunting season (the third time could be in spring). During his first trip he usually brings such supplies as flour, sugar, salt, vegetable oil, pasta, jars of *borsch* (beet soup), condensed milk, candies, bread, cigarettes, bullets, knives, axes, socks, jackets, and lined rubber boots. Herder-hunters order from him in advance to receive particular goods. The prices are considered good because they are even cheaper than in Adyr-Kezhig. He comes to a particular meeting point on a certain date. This place is a former Soviet gold mining site, where three log cabins still remain standing. One family spends the whole winter in a cabin there. If the *kommersant* is late, everyone waits for him, understanding that driving a truck on the hilly taiga is challenging, and sometimes the truck goes very slowly through deep snow. Sayzana practically plays the role of the *kommersant's* assistant by managing all bartering transactions. She writes down what goods are taken in her account book, when, and by whom. Each hunter-herder puts his signature and the date on each entry. The *kommersant* leaves some goods on the roof of the abandoned log cabin. Sayzana is responsible for the goods left by the *kommersant* in the taiga. During his second trip, the *kommersant* brings some more goods and buys sable pelts and musk deer glands. Everybody gathers in one cabin and the trade/barter begins. The price of a sable depends on its color, fur quality, and defects. He attentively inspects every pelt to grade it. There is a silence at this moment. Lower quality skins can cause problems if they have minor defects such as bald spots, holes, or

tree resin on the fur. The *kommersant* deducts the price of animal parts from sold goods and if any balance is left, he gives the rest in cash to a herder-hunter. If a hunter-herder needs more cash than is left on his balance, *kommersant* usually gives the necessary amount of cash. The herder-hunter's debt extends to the next fall hunting season.

3.7 Conclusion

Humans in the Inner Asia region have used animals in a variety of ways. This diversity can be seen in activities of taming, herding, and breeding. The Süt-Khöl pastoralists initiated "episodic" domestication of red deer and possessed the appropriate cultural and technological knowledge to carry out this process. Because of their socio-economic herding organization, which required seasonal migrations, they did not intensify their relations with this large-sized herbivore. In "episodic" domestication, the Süt-Khöl pastoralists' goal was to improve the management of the available resources, particularly to control wild animals, keeping them in captivity rather than accomplishing full domestication. It was a short-term human-animal interaction. However, the acquisition of a wild animal was marked in a culturally symbolic way, in which an animal's transition from "wild" to "domestic" was accompanied by ritual. This transition pattern can be seen as an analogous to a rite of passage, suggesting that humans considered their prey as a person. The personhood of the captured red deer was understood through manipulation of its sensation and perception.

A turning point in Tozhu human-animal interaction occurred during the Soviet era when zootechnical knowledge played an important role in managing domestic animals. Zootechnology and traditional knowledge complemented each other; Soviet technological knowledge brought major changes to the life of Tozhu herder-hunters. The Tozhu experienced a typical scenario of development in the taiga regions, and the resulting collective farms were oriented towards hunting and trapping. The transition to a new socioeconomic system increased the scope of reindeer herding in the Tozhu district. Small-scale reindeer herding shifted to large-scale herding in order to provide hunters and village residents with a means of transport in the taiga reindeer during the fall hunting season. Later, reindeer herding eventually re-oriented towards meat production. The Tozhu district was the main supplier of fur pelts in the republic. Almost half of the population hunted fur-bearing animals. In addition, Soviet authorities encouraged women and teenagers to participate in hunting. Regardless of the fact that hunting was seen as a mostly male occupation,

women of two Tozhun groups hunted in the past, in spite of the existing cultural taboo in Tyva. Women hunted because it was more profitable than other economic activities thanks to the existing fur market in their areas. Today, women of different backgrounds (herder-hunters, herders, and villagers) hunt for sables and even musk deer, in the economic context, in which hunting brings higher return rates—via money and better barter opportunities—in place of other economic activities. Harvesting sable pelts and musk deer glands are the main source of income for the Tozhu. The commercial density of sable has risen during the last four years, although small-sized prey is reliable and easier to catch. The Tozhu sell or exchange these commodities in exchange for food products and other goods. The number of female hunters is small, but if they had access to shotguns, their number, as well as the number of male hunters, would likely increase.

The post-Soviet transition brought a dramatic decline in reindeer herding and forced people to seek alternative ways to survive in the taiga because there was less governmental support. Generally, herder-hunters shifted from reindeer herding to hunting in order to meet market demands. Large-scale herds eventually transformed into small-scale herds, and the number of reindeer drastically declined overall throughout the republic. Herder-hunters purposely keep 40 to 60 reindeer simply because this number is enough to provide a household with transportation, milk, and milk-based products. Grey market activities boomed in Kyzyl in the early 2000s, and the *kommersant* has established a successful trade and barter system with herder-hunters over the last twelve years in the taiga. He brings necessary food and other goods to the taiga in exchange for acquisition of sable pelts and musk deer glands. This trade and barter system help herder-hunters meet their needs. Tozhu herder-hunters have demonstrated a certain continuity by adjusting their economic activities to parallel the greater socioeconomic shifts occurring in the geopolitical sphere. They stayed in the taiga while others moved to the villages, they maintain hunting and herding activities, they build log cabins in winter camps, and they use snowmobiles.

CHAPTER 4: HUMAN-*TARANDUS* RELATIONSHIPS AMONG THE TOZHU

4.1 Human-*Tarandus* Relationships

The ancestors of the Tozhu knew that reindeer were not born to carry loads or human passengers, and that these animals would be stubborn in their resistance to performing these tasks. But those archaic hunter-foragers learned that they could develop a docile reindeer that could be easily managed. Bradshaw (2011) points out that "domestication has not adapted dogs to human environments; it has merely given them the means to adapt" (Bradshaw 2011:122). Although this statement refers to dogs, it can be applied to other domestic animals as well. Herder-hunters learned to give their reindeer the means to adapt; they improved the practicality of the breed and bred reindeer that suited their needs. In fact, today, the taiga reindeer cannot be easily categorized as either domestic or wild. They are not held in full captivity, and they exist in their natural environment with very little human monitoring. In the Tozhun case, the entire taming process is based on keeping reindeer in partial captivity; animals are not locked in the pens and can roam freely across pasturelands. In other words, herder-hunters developed the right balance between a captive, supervised structure and letting the animals roam freely in the vicinities of their camps. Typically, captivity is viewed by scholars as a state in which animals are kept within human-made barriers. The taiga type of captivity is different; it is straightforward and simple—animals are tethered to stakes or tree trunks for long hours. In this case, the reindeer is kept in captivity in the same way as if it were kept behind a fence. This domestication process starts two to three days after calves are born and continues for their entire life span. The Tozhu perceive this tethering of calves and reindeer as an essential practice for cultivating that most valued attribute—tameness (Figure 12). What does tameness mean in reference to reindeer? In general, it means that the herd is easily managed and taught. From an early age, calves learn gradually how to cope with and adapt to a human environment. The timing of the first introduction to tethering is absolutely crucial to how reindeer react to handling later on, particularly by staying close to the *aal*, carrying loads and humans, and tolerating milking. After a month, the calves no longer resist being tied up, as they begin to tolerate being tethered.

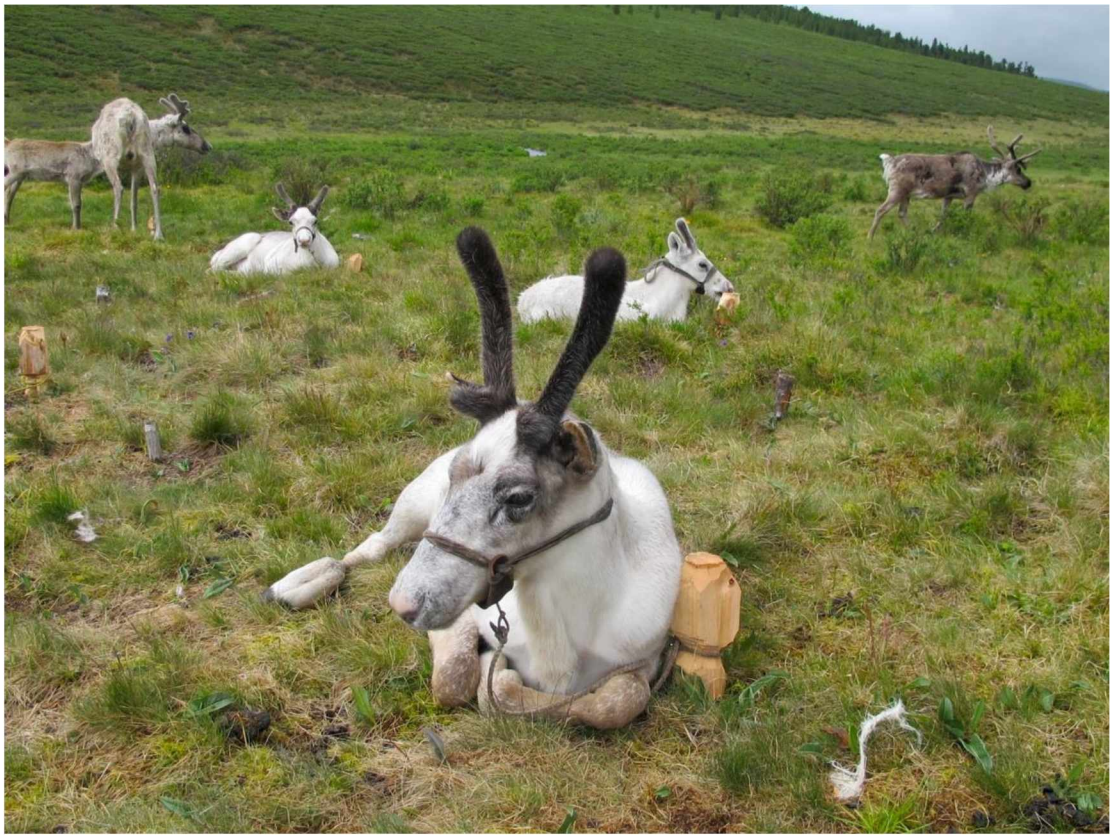

Figure 12. The calves are tethered to the stakes. Aaldyg Azhyk, July 2013. Photo by Tayana Arakchaa.

The Tozhu tether calves to stakes for the day and let them go free after their mothers are milked in the evening. The calves are bound constantly during the summer and early fall. The herder-hunters give them salt from their hands as a technique to familiarize them with humans (Stépanoff 2012, Stépanoff et al. 2017). Stépanoff suggests that "from the human side, there is also a kind of pleasure in distributing salt: perhaps the satisfaction of seeing a reindeer give in out of greed, slowly overcoming its fear and surrendering to humans, the pleasure of a special, fragile, and daily reinforced human-animal contact and communication" (Stépanoff 2012:294). Vladimir Davydov (2014) argues that domestication in taiga reindeer herding is an "on-going process rather than the fact from the past. Therefore, domestication can be approached as domestication-in-practice and domestication–on–the-move, which involves the periodic return of people and animals to the same places" (Davydov 2014:30). Cultivating docility as part of domestication is a continuous process. Without becoming docile, reindeer will not become attached to their people and place and will become lost in the taiga. The main purpose of tethering is managing to keep the herd closer to people and the *aal*. If the calves are tethered, the does will not stray far away, but

will stay close to their calves. If the does and calves are both tethered to the *aal*, it means that the herd will stay nearby around them as well. Reindeer are gregarious by nature; one-year and even two-year old reindeer will often follow their mothers. One day, Anoka spoke to me while pointing to several walking reindeer: "Look at them. Children always follow after their mother, even if they are grown up. They love their family very much. Even we, people, sometimes do not have such special bonds with our family as reindeer have. We need to learn it from them."

Working reindeer are important during the hunting season. With the assistance of reindeer and dogs, herder-hunters can harvest two to three times more animals than without them. According to herder-hunters, hunting with these companions is stimulating and venturesome. Riding is essential for reindeer herders' mobility in the tough taiga conditions. Herder-hunters have great respect for their reindeer because of their ability to carry a rider with packs. Special respect and delight can come from the experience of training particular animals (Hearne 1986, Patton 2003). Being engaged most of the time with working reindeer, herder-hunters become emotionally attached to them. Training animals usually lasts from four to five days and the training process includes tactics that wear down a reindeer's capacity to resist.

Other classic examples of partial captivity rely on additional successful techniques for restricting reindeer movement. Tozhu herders, highly familiar with reindeer behavior, practice a special technique of tying the back leg of the reindeer to its neck, particularly when herder-hunters are on a several-day long extended expedition (going to/from the village or a hunting trip). Because of the gregarious nature of reindeer, they will return to the campsite to rejoin the main herd, leaving a temporary campsite behind. In order to prevent reindeer escape, herder-hunters must tie reindeer using quick release knots when they spend their days or nights in a temporary camp. Being able to untie the knot easily and effortlessly is essential for animal safety; otherwise, a reindeer could be hurt. While tethered, herders must observe the reindeer from time to time and round them up if they move in the direction of the *aal* from which they came.

Another technique to maintain docility involves frequent tethering of reindeer. In winter, reindeer like to disperse in the taiga. The main task of herder-hunters is to find them there and then bring them back to the *aal*. If at least half of the herd is brought back to the *aal* it is considered a success because the others will follow sooner or later. Herder-hunters catch the reindeer by giving them salt and then tethering them. Despte their herd instincts, there are always a few individuals who roam far away and will resist being tethered. In the field, I observed how Sayzana, Andrey,

and Anoka captured the strays. Reindeer were usually caught easily without too much fuss. However, some outliers did not want to come even to eat salt when offered from human hands. They came only to an *ongocha,* a carved wooden rack that holds salt.[65] Catching reindeer in this way takes longer. From herder-hunters' observations, usually the reindeer come back to the *aal* within one to five days. If they do not come back in five days, they are believed lost (either eaten by wolves or become wild).

In the taiga, reindeer herder-hunters have full control over reindeer breeding. Herder-hunters maximize the desired traits of the herd through selective breeding of the reindeer. Selecting the right bull for the herd is important. Kol (2006) states that there is usually a ratio of one to four uncastrated bulls for every three to nineteen adult female reindeer in a herd. According to Sergey, the optimal scenario is to have one bull to thirty female reindeer. The herder-hunters believe that nothing influences the herd more than the choice of a breeding bull. Heredity is crucial, as are behavioral characteristics. The herder-hunters can increase the rate of reproduction by selecting the best bull. The main characteristics desired in the breeding bull are a large size and a strong, muscled back. These characteristics indicate strength and stamina which are critical attributes for riding reindeer, as a large size and a strong back mean that a reindeer will have an easier time carrying a rider with heavy packs through rough taiga and over craggy peaks. In addition, reindeer are often used in caravans, carrying humans with heavy loads during hunting trips or seasonal migrations. In this situation, each reindeer is tied with a rope to the saddle of the reindeer in front. The size of the caravan depends on the purpose of the trip, the number of people living in the household, and the number of working reindeer in the herd. A small caravan of three to four reindeer is usually used for hunting trips. A large caravan can include up to ten reindeer and is used for a seasonal migration. A caravan larger than ten animals is impossible to manage in the hilly and densely forested taiga with its muddy, narrow paths. To carry humans and loads of supplies, the reindeer must be calm, patient, docile, and easily handled. For thousands of years, early herder-hunters selected bulls for tameness; today modern herder-hunters continue to follow this criterion scrupulously. They do not allow rebellious bulls to breed; such bulls are usually the first choice for slaughtering. Such selective culling is especially important in maintaining the tame nature of the reindeer. As with most domestic animals, morphological changes accompany domestication (Dyson 1953); this can be seen in the basic morphological, physiological, and

[65] Typically, men urinate on *ongocha* in winter because reindeer love to lick human urine, as it has salt.

behavioral changes reindeer have gone through over time. Reindeer bodies have altered; they have become shorter and of stouter stature than their wild long-legged relatives. The rhythm of the breeding season begins earlier for domesticated reindeer, by up to four weeks (Baskin 2009). Under such selective pressure favoring tameness, domesticated reindeer have inevitably become tamer then their wild counterpoints.

This long process is a classic example of how, through selection, animals' behavioral traits change over several generations. Lyudmila Trut (1999) states that in 1959, Dmitry Belayev conducted a breeding experiment with silver fox, *Vulpes vulpes,* from a commercial fur farm that had lasted for over fifty years. Under selective breeding, the tame foxes are chosen to produce the next generation. After forty years of strict selection for tameness (30-35 generations), 70-80 percent of the animals were docile, friendly, and "eager to establish human contact, whimpering to attract attention and sniffing and licking experimenters like dogs" (Trut 1999:163). In fact, these domesticated foxes significantly differed from their wild cousins as morphological changes occurred, such as floppy ears, rolled or shortened tails, smaller skulls, and shorter and wider snouts. In addition, many foxes had coat color mutations (Trut 1999).

Similarly, the Tozhu achieved similar results in their quest for reindeer tameness: they repressed the aggressive behavior of the reindeer progenitor, the relic wild reindeer. During the rutting season, when bulls typically become more aggressve, they attack other animals (including dogs) in the encampment, but they never attack humans. This natural instinct was entirely eliminated through the long process of selective breeding and partial captivity. However, domesticated reindeer are not silver foxes locked in their cages. Most of the time reindeer roam free on pastureland, and there is no potential to completely domesticate them, as has been done with other animal species. Herder-hunters stress their need to continue raising and training reindeer in these domestic conditions through tethering and selective breeding in order to keep them docile.

As for selective breeding, every three to four years herder-hunters exchange breeding bulls with their neighbors, in an even exchange. In the past, they often exchanged reindeer with the neighboring Tofa, but today the Tofa do not practice reindeer herding anymore.[66] I remember how proud Sergey was of his three-year old breeding bull. It was a huge, brownish reindeer with beautiful branching antlers and a strong back. The neighboring herder-hunters asked to exchange this beautiful reindeer with their bull, but Sergey, because he had exchanged with them in the

[66] The Tozhu and Tofa do not meet in the taiga as they did in years past.

recent past, wanted a bull from a different area to have a fresh infusion of genes to his herd. He had already made a deal with one family to exchange their bulls before the rutting period would start at the beginning of August. Sergey often checked on his bull to make sure that he was doing well. While with Sergey, I learned that the requirements for a breeding bull are the same as for a working reindeer. When we traveled to the neighboring mountain, I asked Sergey's son Danil what they looked for when selecting a reindeer for the role of a *chary* (working reindeer). Here is his reply:

> The size and the back are very important. The working reindeer should be a large bull with a strong back. The behavior is also important. Rebellious reindeer are not good for riding. Look at my father's riding reindeer. He is the second largest reindeer in the herd. He goes very fast and he listens to him well. My father always chooses the best riding reindeer, and I do not know how he does this. Look at my reindeer. He is three years old. He has a strong back, but he is a moron. Sometimes he does not listen to me, and it annoys me a lot. When I give a command to turn to the right, he purposely turns to the left. And he is not rebellious. If he would be rebellious, it would be impossible to ride him. He is just young, stupid, and moody. This kind of behavior is natural for many young bulls. When he will be older, he will get better. (Kyrganay, oral communication, July 10, 2013)

The Tozhu usually give personal names to working reindeer because of their distinction from the herd, and their owners' close contact with humans. Some reindeer from the herd can also have names or nicknames determined by particular behavioral or physical characteristics. Animals are usually not given human names and their names can be both in Tyvan or Russian. For instance, some common names are Ak Chary (White, working bull), Khüreŋ Myndy (Brown, four years old, and older female reindeer), Birduar (First; born first in the spring), Pensioner (Pensioner, meaning old), Durgun (Runner, since he was always getting lost). Fijn (2011) states that in Inner Asia animals' names fall are influenced by animism, because Mongolian herders engage with their animals as people: "They name each animal individually, ascribe personality and specific characteristics to different individuals, and treat them as beings with emotion, with whom they can communicate on a social level" (Fijn 2011:102). In Sayzana's *aal,* I discovered that some working reindeer did not have names, but instead were referred to according to general reindeer terms, as *chary* (working bull) or *ulug chary* (six- to seven-year-old working reindeer). It is important to note that working reindeer can be either riding or pack reindeer. Pack reindeer are usually not fast enough to ride, but can carry packs. In the case of an emergency (for example, if a riding reindeer is limping), a pack reindeer can be used for riding. Female reindeer also do not have personal

names, even though women milk them twice a day, and milk-based products play an important role in the Tozhu diet.

According to Fijn (2011), the herders treat their personal-named animals with more respect and recognize their individuality to a greater degree than unnamed animals. In the Tozhun case, humans give names to animals depending on their level of interaction, favoring those with whom they interact more and have special bonds—for example riding reindeer, dogs, and horses—because they not only welcome them into their inner human circle, but also because animals who know their names respond better to commands. Because herder-hunters interact with does only during the milking season, they often do not have names. In addition, they are easy to catch. I mentioned before the difficulties I had when riding Shavydar during my first trip. However, it was enough for Sayzana to say, "Shavydar, *ëlkina*! (slang for cursing). After such a scolding, Shavydar would go faster and obey my commands for a while. I even imitated Sayzana's phrase with the same intonation, and sometimes that worked to make him go faster.

Hunter-herders know all their reindeer, their behavior, and their personal and physical characteristics. Although some working reindeer do not have names, hunter-herders value and treat all their animals with respect. When they catch their reindeer, they describe a particular reindeer by physical features, for instance, "*tu khüreŋ myndyzhak*" (that brown two-year-old female reindeer) or "*tu ak döŋgür*" (that white two years old male reindeer). I came to the conclusion that some *charylar*[67] do not have names because they lack unique physical or personal characteristics; in these cases, hunter-herders use general animal terminology to distinguish these reindeer. In addition, body markings are also important for identification of individuals in the herd. Sayzana and Andrey owned about forty reindeer as of December, 2014. Twelve reindeer belonged to Anoka and Vika. The herder-hunters could identify every reindeer and calf within the herd individually, especially when the herd was small. The majority of herder-hunters do not practice reindeer body marking today. However, Sayzana and Andrey did mark some reindeer that belonged to their two daughters. When I questioned them as to why they marked some reindeer, though they could recognize every animal in the herd, Sayzana replied that their daughters, along with their future husbands, would continue to keep their herd, and then they would know which particular animal belonged to whom. By that time, their two daughters had finished school, returned to Adyr-Kezhig, and taken jobs in Toraa-Khem. The oldest daughter worked as a medical nurse at the Tozhu

[67] *Charylar* is a plural form of *chary*.

regional clinic, and the younger daughter was a math teacher at the Toraa-Khem community college. Each already had a young child. The first daughter was not married and did not have a boyfriend. The second had a boyfriend who was in jail in Shagonar (a town in Tyva) and was supposed to be released in a year.

I asked Sayzana, "Are you sure that your educated daughters would like to continue to keep the herd?" She answered, "Of course, they will. *Mal der mal shey"* (A herd is a herd). I have heard this phrase frequently from different people who commented about their animals, reindeer and horses, meaning that they should take care of the animals that supported their families. Sayzana and Andrey are thinking of becoming cattle breeders in six to eight years because a herder-hunter's life is more difficult than a cattle-breeder's life. When I asked if they would be able to herd sheep, horses, and cows, Sayzana replied, "We know how to herd reindeer and we can learn about cattle and sheep. *Mal der mal shey*." Hunter-herders distinguish different species of domestic animals, knowing their advantages and disadvantages. For them they are not only property, but also property that they respect as animals. Donahoe (2012) states, "the Tozhu reindeer herders' relationship to their reindeer is not one of owner to object of ownership, but rather a social one, based on trust and sharing (reciprocity) and not on dominion" (Donahoe 2012:106).

Each culture develops its own terminological system for animals. A nomenclature is a powerful tool that helps to manage breeding and herding livestock successfully (Harrison 2007). Although Tyvan herders usually have a complex terminology of *mal* animals, describing an animal's age, sex, appearance, behavior, fertility, gait, and individual personality, the Tozhun description of reindeer appears less rich. Fijn (2011) points out that "a description of the selection of specific animals for breeding and how the categorization of animals is a key factor in the ability of humans and other animals to coexist with one another" (Fijn 2011:81). She states that animals can be classified within a herd and identified individually (Fijn 2011:81). The key characteristics of animals are their age and sex. This identification determines the use of animals, as well as their breeding status.

According to David Harrison (2007), animal terminology can reveal a great deal of information about the proper place of the animal in the surrounding world. The Tyvan word *ivi*, domestic reindeer, provides information on Tyvan reindeer classification. According to Boris Tatarintsev (2002), *ivi* is usually associated with another word *yvyk* (roe, gazelle) of unknown origin. "*Yvyk* also means wild goat, and musk deer, wild (animal) and has different phonetic

variations. For instance, *ivyk (ayvyk?)* (gazelle, roe deer) (Shcherbak 1970), *iwïg* (wild), *äỹäk* (wild animal, turtledove, duck, wild bird)" (Tatarintsev 2002:337). Tatarintsev states that *yvyk* appeared in the vocabulary of the ancient Turkic texts dated from the eleventh to fourteenth centuries. It was a near-universal Turkic word, and was generally used in old Turkic languages. The word's connection to the Tyvan and Tofan languages remains unknown. By some, the Mongolian word *iwi* (reindeer) might be a source of the Tyvan *yvyk*. Tatarintsev (2002) doubts the origin of this word because there are no reliable sources to support its source. In addition, *iwi* can be found in the Samoyedic language, also of unknown origin.

Tatarintsev (2002) asserts that *ivi* is first and foremost of Turkic origin and perhaps connected to the verb *ew/iw* (to hurry, to hasten) and describes the walking or running ability of the animal:

> For example, in the Khakasian language *ibek* means fast, frisky (*ibek at* 'a fast horse'); in the Nogai language *ebe* (*jybe*?) means nimble, in folklore means a racehorse. In ancient Turkic language *ewäg/iwäg* means hasty, harried, hurrying, hastening, haste, fast, quick; *ewüg* means quickly, shortly; and also *ebäg* means a runner, fast walker. (Tatarintsev 2002:336)

However, the root *ew/iw* is not common for modern Turkic languages except the Turkmen and Turkish languages. Tatarintsev suggests that the word *ivi* is connected to the root *iv-i* meaning a horse, like *ibek* in the Khakasian language. Later, *ivi* was applied to identify specifically a reindeer:

> It is possible that names for all mentioned ungulates were related to *ivi* and its variations (for example, Khakasian *ibek*) and originally these names were connected to the verb *ew/iw,* but later, these animal names were mixed with other words having back vocalism and meant wild animals. Different forms such as *ivuk, iwĪg,* and *ayvuk* as well as the variation *äỹäk* with the front vowel (meaning wild animal) point to the mixture of *ivi* with other words. (Tatarintsev 2002:337)

Tatarintsev's explanation that the word *ivi,* originally meaning a horse, was used to denote a reindeer is convincing, however, considering that ancient Turkic language has a large repertoire of specialized words with the root *ew/iw* for denoting wild animals, including ungulates and even birds, it is quite possible that *ivi* originally meant a reindeer. An ancient Turkic set of related words classifies wild animals by their gait or running or even flying abilities, so that they fall into one moving (walking/running/flying) category. Although a domestic racehorse also falls into the same category; it is a well-known fact that wild horses roamed Inner Asia in the recent past.

The Tozhu herder-hunters developed a system of special terms that can accurately describe reindeer in terms of age, sex, fertility, and rideability. This system represents an efficient way to describe the combination of qualities that may be present in any given reindeer. Different researchers came to understand the life stages of reindeer through documentation of the complex classification of reindeer in Russian, Tyvan, and English; nearly all of them did not have complete information about the full life cycle of reindeer. Elena Kuular and Nadezhda Suvandii (2011) provided a rich terminology for describing reindeer including different phrases specific to Tozhun, Kungurtugan, Tofan, and Dukhan dialects. Based on information provided by Darzha (2013), Harrison (2007), Kuular and Suvandii (2011), Seren (2006), and from my fieldwork research for this dissertation, we see that the life stages and general terms for describing reindeer in the Tozhun and Kungurtugan dialects are as follows:

Reindeer

- *ivi*—a reindeer
- *aŋ ivi, cherlik ivi*—a wild reindeer, or domestic reindeer who became wild
- *kuudayan*—a wild reindeer in the Kungurtug dialect

Calves

- *a"yniy, anay*—a calf from birth to one year old; In Tyvan standard language, a goat kid to one year
- *kuu anay*—a calf from six to twelve months (*kuu* means grey)
  khokash, ederik—a diminutive name of an *anay*; also a command to move faster
  khokash— a calf from birth to one year in the Kungurtug dialect
  taspan— a one-year-old calf
  taspan— a calf born in May in the Kungurtug dialect
- *doŋgur*—a one-year-old calf

Male Reindeer

- *döŋgür*—*"without antlers,"* a two-year-old reindeer
- *toŋgur/ tuŋkhur*— a one-year-old or two-year-old reindeer
- *kuuday*— a reindeer from two to three years old in Kungurtug dialect
- *e"der*—a breeding bull; it is formed from the word *ederer* meaning to follow, chase
  During the rutting period the bulls follow the female reindeer
- *eter*—a bull, a breeding bull in Kungurtug dialect

- *bir düktüg myyys*—"one antler covered by fur," a three-year-old reindeer
- *bir tüktüg kuutay*—a two-year-old reindeer in the Kungurtug dialect
- *dö''ŋgür*—a four-year-old reindeer
- *chary, kuuday*—a castrated riding/working bull, from three to five years old
- *munar chary*—a trained riding bull
- *ulug chary*—a reindeer from six to seven years old
- *iyii düktüg myyys*—"two antlers covered by fur," a four-year-old reindeer
- *iyii tüktüg kuutay*—a three-year-old reindeer in Kungurtug dialect
- *üsh düktüg myyys*—"three antlers covered by fur," a five-year-old reindeer
- *üsh tüktüg kuutay*—a four-year-old reindeer in the Kungurtug dialect
- *bo"khana/bokhana chary*—an old breeding bull, which becomes calm as he ages; very used to carrying loads
- *bogana*—an old breeding bull in Kungurtug dialect

Female reindeer

- *iŋgen*—a female reindeer (disdainful)
- *duŋguy/dunguy*—a one-year-old female reindeer
- *tuŋguy*— a two-year-old female reindeer in the Kungurtug dialect
- *myndyzhak/myndychak*—a two-year-old female reindeer
- *myndyzhak*— a young female reindeer
- *myndy*—a reindeer from three to four years old (and older)
- *mynty*—a female reindeer in the Kungurtug dialect
- *kolchaŋgy myndy*—a pregnant reindeer
- *kyzyr myndy*—a barren female reindeer
- *kysyr mynty*—a barren female reindeer in Kungurtug dialect
- *inŋgen*—a dismissive name for a female reindeer

Reindeer terminology in both the Tozhu and the Tere-Khöl dialects is very similar, except for some minor phonological differences between the dialects. As reindeer herding has disappeared in the Tere-Khöl district, Tere-Khöl reindeer terminology is no longer in everyday use. Although the Tozhu have a large vocabulary of terms denoting animal age and sex, they do not have many words for color, simply because their reindeer do not vary significantly in color or pattern. According to

Nataliya Kol (2006), Tozhun reindeer have four colors, although most reindeer are brown. Typically, for Tozhu, reindeer are either brown, brownish, white, or white with dark spots.

Both prized features of the domesticated reindeer, docility and a strong back, reflect the herder-hunters' constant movement on hunting trips through the taiga. Davydov (2011) refers to Lewis Binford (1980), who classifies hunter-foragers into two groups: foragers and collectors. The major features of foragers' strategy is that they do not store food; they hunt routinely on an 'encounter' basis and then return to their residential camps. The second group are found where "logistically organized collectors supply themselves with specific resources through specifically organized task groups" (Binford 1980:10). They do not look for food on an encounter basis; they search for "specific resources in specific contexts" (Binford 1980:10). In other words, foragers practice residential strategies of movement, and collectors practice logistical strategies of movement. However, Davydov (2011) states that the Evenki herder-hunters do not fit this scheme of movements because they combine the features of both strategies as hybrid 'foragers' and 'collectors,' in behavior that corresponds with the movement strategies of the Tozhu herder-hunters. With their reindeer, the Tozhu are highly mobile hunter-gatherers who go on daily hunting trips if no meat is left in the *aal.* They supplement their foraging activity with commercial hunting. Furthermore, Davydov (2011) suggests another scheme of movements based on spatial and temporal dimensions:

> Thus, short-term movements are those which do not cover large distances and usually imply a return to the same point within a short period of time. This type of movement implies the use of the main base where a movement starts and finishes. Long-term movements, on the other hand, usually do not imply a quick return to the same place and cover larger distances, yet they are built upon a set of short-term movements which involve return to certain points of a route, such as a *tabor*, a *baza*, a *jurta* or a *zimov'e*. In this sense, long-term movements are based upon the use of several bases. (Davydov 2011:114)

According to Davydov's scheme, the Tozhu practice both short-term and long-term movements depending on the season, weather, necessities, and market demands. Hunting trips can represent different types of strategic movements. For instance, if a herder-hunter goes on daily hunting trips covering short distances without having good luck, he will then go for long distances for several days until he has hunting success. Although the Tozhu herder-hunters are considered seminomadic people, they are, in practicality, highly mobile with their reindeer, covering up to fifty kilometers in a single day on hunting trips.

Animal agency is widely discussed in academic literature. Recent studies recognize that not only humans are active participants in human-animal interactions but also animals are active participants (Carter and Charles 2013, Michael 2004, Grenee 2008). Moreover, in hunter-gatherer societies humans recognize that animals have "conscious, self-awareness, intentions, thought and language" (Philo and Wilbert 2000:16). In the Tozhu case, herder-hunters experience that the reindeer they herd have their own unique personalities. Herder-hunters who recognize this individuality use this information to predict their animals' actions. For example, every winter morning herder-hunters bring their roaming reindeer from the taiga to the camp. Herder-hunters' intentions are to prevent reindeer from roaming far away from the camp's vicinities. In order to be able to catch the reindeer, herder-hunters have to negotiate with them by giving them their favorite treat: salt. They tie most of them up in order to stay for several hours in the camp and then they release them to the taiga again. However, some reindeer tend to escape, and herder-hunters call these reindeer *beguny* (Rus. runners). Because reindeer are gregarious animals, other reindeer can join the *beguny,* and all of them can be lost in the taiga. Herder-hunters' main goal is first to catch *beguny* and tie them to tree trunks. These *beguny* avoid being rounded up by herder-hunters by running from them, and the trick with salt often does not work with *beguny*. It is usually a hustle to catch them and takes more time to catch them than other reindeer. Thus, these *beguny* exhibit their animal agency in escaping from human-imposed limited limits (captivity). This type of interaction with *beguny* impacts the humans, causing them to change their normal actions. When normally one human could catch the reindeer, *beguny* require at least two to three people to catch them, making the animal an active agent in the human-animal relationship.

It is important to look at the role of cosmology, the way humans interact with other-than-human beings, and the spiritual relationships between Tozhu herder-hunters and animals in the taiga in order to understand human-animal relations. According to James Serpell (2000, 2005), one of the functions of religion is to provide an explanation of and guidance on appropriate moral principles governing human-animal relations. Hunter-forager societies generally offer perspectives on the nature of animals and human responsibilities toward animals based on anthropomorphic thinking (Mithen 1996). In other words, humans incorporate animals into their social world by ascribing human characteristics to nonhuman animals. The development of this human ability has far-reaching consequences: "as soon as people began to anthropomorphize animals and think about them in human terms, they became bound by essentially the same codes

of morality that governed their interactions with each other" (Serpell 2005:10-11). Hunter-forager societies display a remarkable system of beliefs dominated by the notion that "animals are fully rational, sentient, intelligent beings in no way inferior to humans, and that their bodies, like those of people, are animated by non-corporeal spirits or 'souls' that survive the body after death" (Serpell 2005:11). Briefly summarized, animals should be treated with an appropriate degree of respect in order to not offend the spirits. Serpell (2005) notes that these beliefs tend to generate anxiety that can be relieved through the performance of strict rules and elaborate rituals in order to propitiate spirits. I have previously mentioned that the Tozhu avoid killing domestic reindeer for food. Only those that are sick and rebellious are slaughtered. The actual act of killing a reindeer is performed in a prescribed way to avoid the animal's unnecessary suffering. The slaughter is performed by a man, who stabs the rear portion of the reindeer's head. The reindeer is then skinned and butchered properly, without spilling its blood. All the internal organs are removed, and the blood is then scooped out into a cauldron. Women clean out the intestines and stomach to make blood sausage. All edible parts are consumed; and nothing is wasted. What people cannot eat, they give their dogs.

It is impossible to write about the relationships between herder-hunters and reindeer without introducing *cher eeziler*[68], the spirit-masters. The Tozhu, as a hunter-gatherer society, evolved a respect for supernatural agents, *cher eeziler* (land spirits) or *dag eeziler* (mountain spirits), based on the belief that they share many of the moral characteristics of humans. They are considered the true owners of the taiga and wild animals. Tyvan animistic beliefs include a pantheon of powerful, indestructible, and capricious supernatural agents that can be both benevolent and malevolent (Arakchaa 2009, Kenin-Lopsan 2002, Khomushku 2008, Stépanoff 2007, Van Deusen 2000). Some like *cher eeziler,* can act in ways mirroring human behavior; they can perform both good and bad acts, influencing human lives (Donahoe 2012, Humphrey et al. 1993). These spirits typically are represented as an old man with white beard or a young beautiful girl riding a horse. But here among the Tozhu, I learned out that *cher* or *taiga eeziler* are not anthropomorphized to the extent that was described in ethnographic literature. When I asked several herder-hunters what taiga *eeziler* look like, they honestly replied: "I do not know."

[68] A singular form is *cher eezi.*

Benjamin Purzycki (2010) stresses that in some societies spirits are not necessarily concerned about moral behavior of humans. In the Tyvan case, he describes the nature of *cher eeziler* and relations between them and humans as follows:

> *Cher eezi*, though not exclusively moralizing, are acutely concerned with ritual and with maintaining the vitality of their resource of mastery. It has been demonstrated that ritual costs' ultimate benefits come in the form of group longevity, cooperation, prevention of defectors, and maximizing trustworthiness. In populations where groups are scattered pastoralists, land is traditionally maintained by families, and traveling is risky, having a place to make one's presence known to others and demonstrating a willingness to pay a ritual cost signals a sense of commitment not only to the spiritual agents of the region but to the human agents as well. (Purzycki 2010: 38-39)

Purzycki (2010) points out that *cher eeziler* are concerned with how people treat them, and people are concerned with how to please them well enough to ask for their protection and assistance, especially nomadic people who depend completely on natural phenomena for their existence. In the Tozhu case, although herder-hunters usually do not talk about *cher eeziler,* they recognize their mastery over taiga resources. When I asked Sayzana about *cher eeziler*, she replied, laughing, that if they thought about them her family would not be able to hunt or even to sleep in the taiga. Herder-hunters indifferently acknowledge the presence of *cher eeziler*, and this presence is actualized in different contexts. Practicing the sanctification ritual is one of these acknowledgements. The Tozhu stopped practicing sanctification rituals during the Soviet era. After the collapse of the Soviet economy they revived the rituals but only practiced them occasionally. Despite Sayzana's statement, herder-hunters perform rituals asking *cher eeziler*' assistance in the taiga. Unlike the other herding Tyvan groups who usually have a family ritual, the Tozhu are willing to pay the cost of the ceremony as it is usually a community ritual, in which herder-hunters demonstrate commitment not only to *cher eeziler*, but also to the members of their community. Herder-hunters usually have their *aals* close to a hot spring in order to take healing baths and it is a perfect time to conduct a ceremony when families are comparatively close to each other. According to Sayzana, the last sanctification ritual was held in 2010, when a shamaness from Adyr-Kezhig came for treatment to the Maymygash Hot Spring place in summer. However, in 2012, this last shamaness divorced and moved away to Kyzyl. Since then, there have been no additional rituals.

Dogs and reindeer are important hunting companions who make catching wild animals possible, but only reindeer (and horses) are objects of the rituals used to maintain a harmonious

relationship with the spirit world. The Tozhu practice a religious ritual known as sanctification, in which a particular reindeer, *ydyk* (sanctified animal), is sanctified in order to propitiate the spirit-masters. Many families have one *ydyk* in their herd. The ritual is usually held once in several years. A shaman is invited to conduct a sanctification ceremony, and the shaman is responsible for choosing which animal should be sanctified, usually a riding reindeer or a doe. Preference is typically given to a white reindeer from the herd.

It is interesting to note that Petri (1927) recorded a legend about the domestication of reindeer by the Tofa. One Tofa man went hunting and met another man who told him to go to the top of the Uda River, where he would find two reindeer, one white and one black. The first man caught the white reindeer because it was docile, but he could not catch the black one because it was wild. However, he let the white reindeer go because he did not need it. The other Tofa man went there and caught a white reindeer in that spot. Since then, many more reindeer were born from this reindeer. Vainshtein (1961) notes that the Tozhu value white (*ak*) reindeer more than brown (*khüreŋ*) reindeer. Among the Dukha, white reindeer are considered sacred and used only as pack animals, not for riding (Wheeler 2001 in Donahoe 2012). We can assume that the white color is probably associated with tameness, and that is why the preference has often been given to white reindeer. At the same time, "whiteness" means happiness in Tuvan culture, another possible reason why white reindeer were chosen for the ceremony and are considered sacred. Today, herder-hunters have not retained a preference for white reindeer.

The main purpose of the ceremony is to dedicate a sanctified animal to *cher eezi* and ask it to bring good luck for hunting and to protect the family and their herd from misfortunes and diseases, as well as to attract good fortune. A shaman will perform *algyshtar* (shamanic songs), ritual singing, communicating with the *cher eeziler* and asking them for assistance or protection. A shaman will burn a bundle of juniper to purify the animal and the *aal* space. After the ceremony it is prohibited to ride or slaughter the sanctified animal (Petri 1927, Potanin 1881, Stépanoff 2012). It is also a taboo to cut the reindeer's antlers. A shaman ties several c*halamas* (ribbons) of different colors to the reindeer's neck to identify the sanctified reindeer (Petri 1927). During this ritual "the reindeer is given the position of an actor and is responsible for the relationships between the herd and the entities of the environment (sun, wolves, etc.)" (Stépanoff 2012:302). According to Stépanoff (2012), the consecration ritual reinforces:

> (1) the idea that the herd is structured by deep essential differences that exist between individuals and that these differences should be noticed and enhanced by humans (In other words, humans' psychological essentialism contributes to reinforcing a social organization that is much more volatile among wild herds.); (2) a model of a human-animal relationship which attributes autonomy and responsibility to reindeer. (Stépanoff 2012:302)

As I mentioned before, the Tozhu have a large repertoire of reindeer terminology that helps them to identify a particular reindeer, and by doing this they reinforce a social organization within the herd.

A *cher eezi* can always send misfortune, if someone misbehaves in the taiga; diseases and other kinds of misfortune are considered the consequences of carelessness, disrespect, and misbehavior. Humans need to show respect to *eeziler* and to show that they care about luck for hunting, the herd, and good fortune in general. It is a tradition to offer available food to the spirit of the fire (in the hearth) on a daily basis.[69] No matter where the seasonal camp is located, herder-hunters must feed the fire with any available food, pieces of fat, meat, or several spoonfuls of soup. Feeding the fire is explicitly associated with a demonstration of respect toward to *cher eeziler.* In the beginning, when I was responsible for cooking meals or preparing dog food, I often forgot to feed the fire. Although I knew that it was prohibited to burn trash, such as onion and garlic skins, I also accidentally forgot this rule and burnt some trash. Sayzana scolded me for being negligent; she was afraid that because of my disrespectful behavior her family could lose their good luck. Afterwards, she often watched me when I finished cooking to see if I would feed the fire in the stove. If a herder-hunter is on a hunting trip, his first action before starting to prepare his meal is to give an offering to the fire.

4.2 'Wolves' with Reindeer and Dogs

There is more to survival behaviors than simply hunting efficiently, as a multitude of skills enable hunter-herders to thrive in the taiga environment. Understanding the methods hunter-gatherers use in hunting is central to measuring their hunting effectiveness, as well as their ability to survive and thrive. Killing animals for their meat and fur with the aid of reindeer and dogs was an important behavioral modification of early hunter-gatherers. The early population in the

[69] If a herder-hunter is on his hunting trip, his first action before starting his meal is to give an offering to the fire.

territory of Tyva developed a successful hunting system by mimicking the hunting style of other apex predators—wolves. It is necessary to note that the Inner Asian Turkic tribes consider the wolf so symbolically central that it is sometimes referred to as their totem (Darzha 2013). For instance, Mongolian tribes believe that their lineage begins with the pairing of a wolf and a deer (Kahn 1998). The Turkic nomadic tribes had an ancient legend of the wolf and a boy:

> The story told of a female wolf finding a human baby boy whose feet had been cut off and who had been abandoned on the steppe to die. The mother wolf nursed the boy back to health, protected him, and reared him. When the boy grew older, there was no one else to love him, so he mated with the wolf. From their offspring descended all the Turkic tribes that spread out from Mongolia. From them arose all the notable Turkic nations of history. (Weatherford 2010:244)

According to Møller (2015), the Dukha believe that their clan originated from a wolf, which is why they are not allowed to kill wolves. This lineage history can be interpreted as suggesting that the first domesticated animal was a dog (wolf-dog) from the Sayan-Altay region. This mythic kinship depicts closely connected relationships between humans, dogs, and deer. It is believed that wolves were the first survival instructors of humans. People valued wolves highly as efficient hunters and intelligent teachers. A wolf is referred to in Tyvan as *börÿ, kokay,* or *kök-kara* (Tvy. with blue eyes). In Tyvan belief, wolves were the first hunting instructors. In order to perform extremely difficult survival tasks with less effort, early humans mimicked and modeled their hunting methods after the swift pursuit of wolves. Shipman (2015) argues that climate change and the arrival of modern humans, "an invasive new apex predator[s]," (Shipman 2015:230) with their ability to form an alliance with wolf-dogs caused the extinction of Neanderthals. It appears that Neanderthals "were slow to innovate and slow to change their ways in their world" (Shipman 2015:229) and did not form alliances with other species as a survival strategy. As Shipman notes,

> Although modern humans belong in the order Primates, not the Carnivora, and do not possess the slicing or crushing teeth, strong jaws, powerful limbs, and sensory abilities that most carnivores do, behaviorally *Homo sapiens* is unquestionably predatory. Our ability as predators hinges on our ability to make and use tools to perform the activities for which carnivores use their jaws, senses, legs, teeth, and claws. (Shipman 2015:72)

According to Shipman (2015), one of most striking behavioral and technological breakthroughs of modern humans emerged from modeling wolves' hunting style. Once again, this part of the story of early taiga hunter-gatherers' survival begins with a remarkable achievement—the domestication of canids and ungulates, and the development of cherished multispecies

relationships between humans and nonhuman creatures. Typically, humans expanded their abilities by gaining the good sensory abilities of canids, but in the taiga conditions, they needed to use the swift strong legs of ungulates as well. Modern humans succeeded in domesticating the carnivore and were pre-adapted to domesticate an ungulate to gain assistance in hunting. Later, hunter-foragers of the taiga zone succeeded in building quadrangular relationships between humans, dogs, reindeer, and horses. They understood and accumulated the knowledge of the animals' behavior and improved their own hunting skills.

Wolves live in families (packs), forming a strict hierarchy with the leaders demanding obedience from all family members. Scholarly findings suggest that wolves were able to be domesticated because of their ability to follow the orders of their human masters. The main impact of wolves on human life came through human modeling their hunting tactics. Wolves hunt cooperatively by chance or by smell, particularly preying on such large ungulates as deer, moose, and elk. For instance, when hunting a moose, wolves locate their prey, chase it, surround it, and kill it. Humans rely on similar collective tactics to capture large animals. In addition, in Inner Asia, they cooperate with different hunting partners—dogs, horses, eagles,[70] and reindeer. I propose that imitation of wolves' hunting tactics was a stimulus to domesticate not only wolves but also ungulates and raptors. The greatest talent of Eurasian nomads lay in their ability to use the predatory strengths of other species—eagles and dogs—to their collective advantage. Horse-riding and eagle falconry are some of the highest achievements in the hunting history of humankind. Darzha (2013) states that every man can hunt, but only a few can hunt while simultaneously coordinating a horse, an eagle, and dogs. This type of hunting requires enormous technical skill and the cultivation of a hybrid knowledge of three separate animal species. Using all of these species, hunters capture prey faster and with less effort during their hunting trips. For example, horses are the fastest means of transportation in the steppe, and eagles play an important role in quickly locating the prey (hares, foxes, wolves). Dogs are used to find the prey and keep the target animal in one place by surrounding it and barking until hunters approach and shoot it. Moreover, in the past, hunters used two breeds of hunting dogs simultaneously such as the *Taygan* and the *Kadarchy Yt*, each performing different tasks in the hunt for wolves. Light *Taygan,* as pointers, chased down anything that moved, and large *Kadarchy Yt* were specifically used for big game

[70] Although they use eagles, falcons and hawks, for the sake of convenience I will speak here only of eagles.

hunting. As a result, this type of hunting became more complex. Humans train dogs and eagles to cooperate with each other. Dogs coordinate with eagles in locating the animal, and eagles are trained to hunt wolves and foxes. Looking at this hunting practice, we can see a continuum of multispecies relationships of active hunting partners: dogs, eagles, horses, and prey animals, "who are the ultimate objects of hunting but are nonetheless capable of understanding human behavior, evading capture, or fighting back" (Simon 2015:695).

Although hunts requiring intelligence and collaboration with four nonhuman species were common in Inner Asia, eagles are largely useless in the taiga because they cannot locate prey in the deep forest. Dogs and reindeer played a significant role in adaptive hunting strategies in the taiga zone. This is the key transformation of the taiga zone: the evolution of the "hunting triad of dog-reindeer-human" (Anderson and al. 2017:8), committed to the killing of wild animals. If we consider a herder-hunter as a 'wolf' lacking strong jaws, crushing teeth, fast legs, sharp vision, good hearing, and scent, this 'wolf' has to cooperate with the other pack members, dogs, to take down their large prey object, which might flee. As in the wolf pack, the 'wolf' as a leader defines the role for each pack member and, together, they work as a team. With minimal communication, they understand each other and collaborate so effectively that the pack becomes a highly performing team. Tracing the scent and trail of an animal, the dog leads the triad (Anderson et al. (2017). In actuality, the 'wolf' leads the dogs to the kill site and subsequently trusts them to lead the triad in the hunt (Figure 13). The 'wolf' releases the dogs in pursuit of the targeted quarry. Their task is to locate the target animal, chase it over long distances, surround it, and give a signal to the 'wolves' by barking. Reindeer are also active hunting companions, providing a reliable means of transportation to move swiftly through the taiga. In addition, some older, experienced reindeer, hearing the dogs' barking, can locate them and bring the 'wolf' to the place where the prey is surrounded (humans do not possess the acute hearing of the reindeer). While humans and nonhuman animals can mimic each other, humans lead the main mimicking role in the hunting activity. The Tozhu imitation process is the inverse of Willerslev's description of the Yukagir hunters: "By means of mimicry, the Yukagir hunter assumes the viewpoint, senses, and sensibilities of his prey while still remaining aware of himself as a human hunter with the intention of killing it" (Willerslev 2007:26). In the Tozhu case, the herder-hunter assumes not only the viewpoint of his prey but also assumes the viewpoint of a fellow carnivore, particularly by thinking about each pack member's hunting behavior considering age, experience, gender, and social status

in the 'pack' and ways that each can contribute to the chase and kill. Thus, the herder-hunter must keep in mind many factors to achieve hunting success and to avoid wasting energy.

Figure 13. Wolves. Illustration by Alina Arakchaa.

Herder-hunters working with reindeer and dogs capture not only more prey, but also a wider variety of prey. They have an enhanced ability to take down large prey and bring it home from long-distance hunting expeditions. Cooperation with these animal species helps decrease the human expenditures of energy in hunting. Not only do humans and dogs cooperate with each other, but dogs and reindeer do as well. Hunting without reindeer and dogs must have required enormous strength and skills in the taiga conditions; it can also be dangerous with some species, such as boar and bear.

The early hunter-foragers spent thousands of years changing the reindeer breed, and in turn the reindeer changed them as well. Evidence indicates that taiga hunter-foragers tend to be smaller than their neighboring cattle breeders. Petri (1927) noted that the Tofa had a lighter weight, and it

was seldom that a Tofa man's weight would reach about four *poods*[71] (65 kilograms). The weight of a rider is crucial, especially when a hunter spends long hours searching for prey in the mountainous and hilly taiga. Carrying a heavy rider, a reindeer will soon be exhausted. In fact, there is always the risk that a heavy man could break a reindeer's back. Although forest people are smaller around the world, I suggest that less body weight was an adaptive strategy, which allowed the Tozhu to live together with the reindeer, and specifically to ride them. Views regarding stature and mating height preferences in many human populations are well documented by other researchers (Courtiol et al. 2010a; 2010b, Jackson and Ervin 1992, Pearson 2000, Salska et al. 2008). Alexandre Courtiol et al. (2010a) note that height and stature play an important role in the perception of attractiveness in human mate choice. Height and body mass significantly influence perceptions of an individual's body shape. Moreover, the effect of body mass on body shape varies between women and men. Courtiol et al. (2010b) chose height to determine variations in mate preference among French men and women through choice experiments. The findings indicate that both men and women prefer mates who are significantly taller than average. Jackson and Ervin (1992) examined the height stereotypes among women and men in the United States. Their study results reveal that both women and men consider shortness a liability. Irmina Salska et al. (2008) study examined height preferences in 2000 personal ads in the United States. This study demonstrates that height preferences are strongly influenced by one's own height as well as societal norms. The researchers stress that society has a set of expected gender norms about physical appearance based on the assigned sex. Thus, women generally expressed preference for the taller-male norm: "Women possess mating mechanisms that favor tall men because tall stature provided either heritable advantages to offspring or direct benefits such as resources to women in the ancestral past" (Salska et al. 2008:213). Men also prefer a shorter-than-male female partner because of the same "expected gender norm that men are more powerful than women" (Salska et al. 2008:214). Although these studies were completed among sedentary populations living in industrial societies and having a vastly different lifestyle, similar selection criteria can be seen in Tozhun society where men are also expected to be taller than women.

The Tozhu as hunter-gatherers need to be in good physical condition while performing such tasks as reindeer riding, hunting, and walking in mountainous rugged taiga-tundra. While there are tall Tozhu men, the majority are short. A herder-hunter's light weight always coincides with a

[71] *Pood* is an old Russian unit of mass equal to 16.380 kilograms.

physically strenuous lifistyle, engaged in subsistance activities. Wth a relatively light weight a herder-hunter still must be able to control a reindeer that weighs 200 kilograms and moves swiftly on hilly taiga. A lightweight rider helps to decrease the load on a reindeer. The Tozhu tend be fairly short, and their shortness is due to their occupational weight limits.

During my research, I documented this cultural, physical aspect of reindeer riding. The herder-hunters asked about my weight. It is certainly rare in fieldwork that a researcher's weight is so critical. When I first came to Sayzana's *aal,* Anoka asked what my weight was, and I said that I was 64 kilograms (my height is 161 centimeters). He told me that my weight was fine, and Pensioner (a *chary*) would be able to carry me. According to herder-hunters, an ideal rider's weight should not exceed 60 kilograms, although a large reindeer[72] can carry a 70-kilogram rider. For both horse and rider safety, the Certified Horsemanship Association recommends the 20 percent rule, which means the rider's weight should not exceed 20 percent of the horse's weight. For example, a 450-kilogram horse can carry a 90-kilogram rider (Certified Horsemanship Association 2017). A riding 200-kilogram reindeer can safely carry a 60-kilogram rider, which is 30 percent of the reindeer's weight. Therefore, the Tozhu use a 30 percent rule. If a reindeer is large and strong and can carry a 70-kilogram rider, the reindeer carries 35 percent of his weight. In addition, in winter, the riders have heavier winter clothing, which adds extra kilograms to the reindeer. If we compare the 20 percent horse rule and 30 percent reindeer rule, it is obvious that the reindeer is stronger.

One day Vika, noticing that I liked to eat candy, commented: "*Kaanbet chiir bolgash semis-tyr sen"* (You eat candies; that is why you are fat). It was not flattering to hear that I was fat. However, I felt a little chubby around such fit people. In addition, the Tozhu are noticeably smaller than those Tyva living in other parts of the republic. I felt that almost everyone was a little bit shorter than I, and only met two men who were taller, Andrey and Cheyneshko (a man from the neighboring camp), but they were slender with thin bones. However, I did not want anybody to question my weight on the next field trip, so I purposely lost four kilograms in order to not tax the reindeer.

When people asked about my weight, one story always came to my mind, which happened with my ex-husband, Orlan, who worked as a policeman when we lived in Turan in the Biy-Khem district for the year of 1995-1996. During that year, Orlan often chased *kaygals* (cattle stealers,

[72] Maximum weight can reach 220 kilograms.

rustlers) on horseback in the taiga. It was a challenging and quite dangerous task because some *kaygals* were treacherous and would shoot chasing herders or policemen in an ambush. In the fall of 1995, several cows were stolen from a herd, and it was known that the rustlers were from the Tozhu district. Orlan and his two colleagues were sent to chase *kaygals* in the Tozhu district. The group penetrated deeply into the taiga, reaching a reindeer herding camp. There were two traditional dwellings, *chadyrlar*,[73] and the policemen asked the herder-hunters to stay for a night. When it was time to go to bed, the hosts showed them a place to sleep in the *chadyr*, but they told Orlan, "There is no place for you here. A young woman with a toddler lives in another *chadyr*. Go to sleep there; she needs to have a son." Orlan was shocked by this straightforward statement; he did not know what to say and looked at his older colleagues. The men were silent; Orlan had to go to the other *chadyr* thinking about his awkward situation with the Tozhu, who seemed radically different from the urban population he knew. He was on a mission to catch rustlers, not to make a baby with a completely unknown woman. It was not surprising that these people chose Orlan as a father for the girl's future child: at 22 years old, he was handsome, healthy, physically active, slim, and athletic, and his height was 176 cm in contrast to his colleagues—in their 40s, not attractive and overweight. The young woman was in her middle or late 20s. She showed Orlan a place to sleep on the right side of the dwelling, the male side, and she went to sleep on her female half of the *chadyr*, the left side.

The next morning, an old woman approached Orlan and said;

> I am so glad that you did not sleep with the girl. You are big-boned. If she would carry a son from you, he would have big bones and be heavy, too. When it would be time to ride a reindeer, he would break the reindeer's back. It would be disastrous for us to have such a man in the *aal*. They did not think properly when they sent you to her.

However, these people did not see right away that the young man had big bones. What does it exactly mean to have big bones? The elder was trying to say that big-boned Orlan would pass his big bones to a new child. In general, a tall and big-boned man is heavier than a short, small-boned man. It would be a challenge for the family to have a heavy, big-boned man in the household in which the economy depends on hunting, and men on reindeer spend their days searching for prey (Figure 14). A rider's weight is a critical criterion for riding a reindeer.

[73] A cone-shaped tent covered by birch bark in summer and reindeer hides in winter. *Chadyrlar* is a plural form from *chadyr*.

Figure 14. Small-boned Sergey with his small stature riding a reindeer. July 2013. Photo by Tayana Arakchaa.

It is necessary to mention that the Tyva recognize the role of a father as one who gives bones to a new child, whereas a mother creates meat and blood. For the Tyvan groups, belonging to a tribe was very important. Since they were patrilineal societies, a male lineage or a clan was known as *söök or seok* (bone, bony, breed, quality), meaning "bone of the father." In other words, the origin of a child's bones signified the affiliation with clan or tribe. *Söök* or *seok* means belonging to the clan/tribe.[74] Stépanoff (2009) states that the Tyva living in the Tsengel district in Mongolia believe that a child receives bones from his father (Tyv. *söök törel*) and meat, blood, and heart from his mother. According to Jack Weatherford (2010), for the nomadic Turkic and Mongolian tribes (in the 15th century) execution through mutilation was the most feared death

[74] The Chinese colonizers destroyed the tribal social organization in the 18th century. The Soviets contributed to further undermining the tribal system. Today, belonging to a particular *söök* is not as important as it was in the past. Only few elders who still recall the importance of the *söök* can ask about *söök* affiliation.

because breaking the bones symbolized the father and ripping apart flesh symbolized the mother: "Such a death not only kills the body but also destroys the soul and pollutes the earth" (Weatherford 2010:201). According to Yakovlev (1900), the Tyva distinguished three degrees of kinship: *törel*, *seok törel*, and *khan törel*. *Törel* means a paternal or maternal relative, it also includes "all *sumos*[75] and *khoshuns*[76] and all related tribes mentioned in legends" (Yakovlev 1900:88). Elena Ayyzhy and Arzhaana Kongu (2013) stress that *seok törel* is based on blood and bone ties (consanguineal kinship). *Khan törel* is a consanguineal kinship disappearing in the fifth generation (Ivanov 1985). However, according to Stépanoff (2009), today, when the Tyva is asked the question "Kandyg *söötkug siler?"* (What is your bone?), he or she replies, "*Tyva kizhi-dir men*" (I am a Tyva).[77] The word *söök* is used to indicate the Tyvan ethnicity. An expression *kara söök* is commonly used referring to a person of common origins. It also refers to a Muslim, or a person from the Central Asian or Caucasus regions.

The aforementioned story demonstrates that the Tozhu believed that the man created not only the bones but also the quality of the bones: thick or thin. The Tozhu elders, recognizing the role of the father as the bone creator for a new child, preferred their daughters' partners have short height and small bones. What makes the end of Orlan's story interesting is that later, we had a daughter who grew to be plump, big-boned, and wide-shouldered—although I belong to the small-boned category. The elder had already foreseen that Orlan would pass his big bones to his child. Considering this story, I asked Sergey what mating preferences the Tozhu had, and he told me that he never heard of such things. One day he told me that a year before I came, a local scholar had visited his summer camp. Sergey made a comment about that woman, "This woman was fat. I do not know how she rode a horse in the taiga."[78] I asked him if she rode a reindeer, even though she was overweight, Sergey replied with great opposition, waving away his hands, "No, she was too heavy for my reindeer. I would not let her to do it." I noticed that Sergey never made negative remarks about people, and here he was simply stating facts. This comment about the woman's weight demonstrates that weight limitations for riders are not only an important safety issue for the reindeer, but also so that a small rider can maneuver well enough to be safe. The Tozhu

[75] The smallest administrative unit in the kozhuun (district).
[76] District.
[77] In my opinion, this depends on generational knowledge; personally, I know what this question means because I was asked this question by elders several times during my lifetime.
[78] I would not describe her as fat, merely slightly overweight.

generally perceive that riding an animal is key to be a skillful hunter, the predator and the leader of the pack, and that the hunter must maneuver well to capture the prey on the challenging terrain. With their large reindeer and smaller human stature, the Tozhu can be considered among the most well-adapted 'predators' living in the boreal forest.

It is known that the Tozhu often avoided their neighbors, although intermarriages happened in the past between different clans/tribes. From the story above, one might assume that in the past, elders would observe the physical features of potential partners from other clans/tribes, particularly noting the partner's weight, height, and bone density—all crucial factors in riding a reindeer. The prolonged co-existence of humans and reindeer required adaptation on both sides. This process was not exerting a one-way human influence on animals; hunter-foragers themselves adapted to suit reindeer morphology in return. The Tozhu not only cultivated docile reindeer, but they have also bred the largest reindeer in the world, and they themselves also have evolved into smaller human riders. As a result of the long process of reproductive selection and the demands of their way of life, the Tozhu have small bones, short height, and a generally low body weight. Both Michael Levin (1958) and Vainshtein (1961) stress that the Tozhu look different from the rest of the Tyvan population. In general, the Tozhu are short compared to other Tyvan populations (with more prominent cheekbones, narrower and smaller lower jaws, and thin lips). Napoleon Wolánski and Ewa Kasprzak (1976) point out that poor living conditions also contribute to the short height of the Tozhu population. In the taiga, filling the predatory role of "wolf hunter" requires that the Tozhu find and pursue their animal prey; small stature and light body weight allows them to move more efficiently with their reindeer than taller people. The above related personal account suggests how a recognized preference could have contributed over the long term to a change in overall size as an adaptive strategy, with the Tozhu elders articulating breeding preferences among the clan/tribe, allowing the Tozhu to adapt to live among the reindeer and use the power of the reindeer to their advantage as hunters. Height and stature among the Tozhu require further investigation, taking into consideration the taiga environment and their socio-cultural background.

4.3 Riding a Reindeer

The Tyvan government decided to develop reindeer herding in the Tozhu district and strongly encouraged herder-hunters to increase their number of reindeer. The first step came when the government brought forty reindeer from the Evenki in Yakutia in 2005. In 2009, another 100

reindeer were brought from Yakutia. This experience was disappointing for herder-hunters. First, the reindeer were small and they were not adapted to taiga conditions. Second, they were not as docile as the local breed. Third, they all had a parasite infestation. Sayzana complained to me that they had never seen such wild reindeer, and they did not know how to manage them. It was difficult to catch these imported reindeer because they offered resistance and kicked. The majority of the Evenki reindeer ran away or died. Sayzana showed me the offspring of a Yakut father and a Tozhu mother, who had the name Yakut.[79] He was comparatively smaller than other reindeer of the herd. Yakut was equal in size to a one-year-old Tozhu reindeer, and so he was used only for packing. After this bad experience, herder-hunters became careful about which reindeer to add to their herds; they did not want to accept wild tundra reindeer from Yakutia again. They realized that the best choice for them was the reindeer of the Dukha from Mongolia; because the Dukha was the same docile breed and had the features they desired.

According to Donahoe (2012) and Stépanoff (2012), the Tozhu have a relationship with their reindeer based on trust rather than on domination. According to Stépanoff (2012), the majority of human activities are built on "joint commitment," in which multiple participants, humans and animals, are involved in carrying out actions with "minimal shared knowledge and poor means of communication" (Stépanoff 2012:288). Moreover, this joint management is based on animal autonomy; the Tozhu respect and trust their reindeer (Donahoe 2004). This respectful attitude does not mean that the Tozhu herder-hunters do not act in a dominant manner toward their animals in order to maintain control over them. The dominant role of humans is important in the process of training an animal to carry humans and packs. Fijn (2011) points out that herders "take the place of the lead animal within the hierarchical structure of the herd" (Fijn 2011:44). This leadership through behavioral domination is different from the transition from "trust to domination" that Ingold (1994) discussed. However, this behavioral domination is necessary to gaining a high degree of trust (Fijn 2011). The whole process of training an animal is based on domination. The point is that the fear of experiencing inconvenience and pain makes a reindeer choose to obey human commands.

Practically, reindeer riding techniques are similar to horseback riding techniques. If you know how to ride a horse, you will learn to ride a reindeer quickly. First, the rider needs to find a level place to mount the reindeer . Any elevation such as a boulder, a stump, or broken tree is a

[79] It is interesting to note that such offspring also received this same name in other encampments.

perfect place for mounting. Traditionally, mounting occurs on the left side of the animal (the same with a horse) (Figure 15). A rope and a *dayangysh* (a stick, shortly *dayak*) are essential riding aids that are used to make the reindeer move. Later, when a reindeer adjusts to riding and to humans, it has a high degree of trust for his owner.

Figure 15. Sergey mounting a *chary*. Aaldyg Azhyk, July 2013. Photo by Tayana Arakchaa.

Riding a reindeer in a mountainous area through slushy taiga and swampy places is a challenging activity that "requires good coordination between human and animal" (Stépanoff 2012:297). Correct body position is a basic rule to riding any animal. Without it, both the rider and the reindeer cannot balance properly, and the rider cannot deliver his commands correctly. The rider needs to keep good riding posture and good balance as the saddle wiggles from side to side. The reindeer's hide is usually loose and moves from side to side on its back, especially in summer.

The stability of the hide varies from reindeer to reindeer. The older the reindeer, the more stable its hide. In winter a hide is comparatively stable. When a person rides a reindeer, huge dried tree roots, slippery mud or ice, stones, swampy places, uneven ground, and ditches covered by grass "cause ceaseless shifting of the load on the fragile spine of the animal" (Stépanoff 2012:297). The rider must maintain balance in order not to fall off (Figure 16).

Figure 16. Sayzana departing the *aal*. Sorug Azhyy, November 2014. Photo by Tayana Arakchaa.

According to Stépanoff (2012), "good coordination between human and animal" includes knowledge of the environment by both rider and reindeer. Sometimes the rider lets a reindeer choose whether it is better to pass through a slushy or swampy place, since the reindeer knows better where it is good to step. This trust is a crucial aspect to Tozhu mobility in the taiga. On uneven ground or a path covered by large stones, a rider must assume total control over a reindeer, or else let the reindeer decide where to step. If the reindeer jumps on uneven ground, a rider can easily lose his balance and fall off. If a reindeer jumps on large stones, it can injure or break its hooves or legs. It is a disaster for herders if a reindeer breaks its leg or back, which is why a rider

needs to get off the reindeer and walk past the dangerous obstacles blocking travel. It is also important not to let a reindeer step off the path because there can be ditches under heavy grass cover, and an accident can happen; these accidents can have fatal results.

Generally, a rider uses different riding aids, including his legs, hands, a seat, a rope, and a *dayangysh*, depending on the desired response. According to Stépanoff (2012:296), the rider uses a special vocal signal "oh! oh!" to move a reindeer forward. During my fieldwork I noticed that people with whom I stayed and met did not use any voice signals. I questioned them about it, and they explained that making a vocal signal depends on the rider's personality. Some people use special voice signals; others do not. The best way to make a reindeer move forward involves using the legs to strike both sides of the reindeer by the heels in the stirrups and with a *dayangysh*. The lengths of the stirrups should be adjusted properly; otherwise, the rider will soon tire. The rider must frequently strike the reindeer with his heels to encourage the reindeer to move faster. The rider takes occasional breaks from hitting the animal in order to rest.

According to Vainshtein (1961), the Tozhu occasionally use a *dayangysh*. Petri (1927) states that the Tofa used tree branches to make the reindeer move faster. From my experience, almost all the Tozhu herders I met used a *dayangysh* except Sergey. It is important to stress that a *dayangysh* has several functions, and it is used 1) to keep balance while riding, 2) to make a reindeer go faster, 3) to keep a firearm stable while shooting, 4) to measure the level of snow during the hunting season, 5) to check the freshness of the animal's tracks, and 6) to strike the branches of the trees in order to let the snow fall off during a trip in winter.

One of the main functions of the *dayangysh* concerns balance while riding the reindeer. The *dayangysh* is an effective aid in making the animals move faster. With the help of the *dayangysh*, older people can mount the reindeer easily. The tail is a sensitive part of the reindeer's body, which is why the rider sometimes strikes the tail area with the *dayangysh*. The length of the *dayangysh* is usually from 130 to 150 centimeters. The strike can vary from light to powerful, but too light a strike may be not effective. Sometimes it is enough to raise the hand with the *dayangysh* to make a reindeer run. If a bull is young and sometimes disobeys the rider's orders, a *dayangysh* is the right thing to use for control. If a reindeer is old and reluctant to speed up, a herder-hunter uses the *dayangysh* for encouragement.

The *dayangysh* is not only an effective riding aid, but it also helps to keep a firearm stable while shooting (Figure 17). A herder-hunter usually dismounts a reindeer before shooting game

because a reindeer can move, making them miss the target. The man holds the *dayangysh* in his non-dominant hand like a bow and sets it perpendicular to the ground. This position helps to avoid shaking hands and decreases the chance of missing the desired target, thereby maintaining the technique of the bow, even though the bow is no longer used.

Figure 17. Sergey is demonstrating how he shoots with the help of a *dayangysh*. Aaldyg Azhyk, July 2013. Photo by Tayana Arakchaa.

The *dayangysh* is necessary during the winter. Herder-hunters will never leave the *aal* without it. First, they check the freshness of animal tracks without dismounting the reindeer, thus saving time. The herder-hunter simply puts the *dayangysh* into the animal's tracks in the snow. If it enters smoothly, the tracks are fresh, and he releases his dog to track the animal. According to Rusakov (1958), a Laika can detect sable tracks left from seven to eight hours earlier. During the hunting trip with Anoka I observed how he checked the sable tracks. According to Anoka, if the

tracks are not fresh, they will be glazed over, and an obvious hole from the *dayangysh* will be left in the track, and the herder-hunter will keep searching for fresh tracks. Another function of the *dayangysh* is to check the level of snow. If it is too deep, then it will exhaust a *chary* going through it, or prevent dogs from traversing it at all. In addition, all the tree branches can be laden with snow in the winter in the taiga. The herder-hunter strikes the branches of the trees with the *dayangysh* in order for the snow to fall off because, otherwise, when the rider passes under those branches, all of the snow would fall on him. It is unpleasant to feel snow melting on one's neck and under the collar of the jacket, and later the rider would grow cold.

The Tozhu do not use reins, but instead they use a rope as a halter to imitate a bridle and reins. The rider keeps the halter in his left hand and the *dayangysh* in the right hand. Riding a reindeer is a process of a constant adjusting. A reindeer's head goes up and down, and the rider must move his hands so that the rope will not be too short or too long. In addition, when the reindeer is turning, the rider needs to watch the reindeer's antlers because they can hit his face (in the summer). The Tozhu prefer to use Russian saddles rather than Tyvan saddles because the former are more comfortable. They are bigger and provide greater stability; and thus, the rider saves energy.

Falling off a reindeer occurs more often than falling off a horse, but a fall from a reindeer seldom causes serious injury. First and most importantly, a reindeer is trained to stop immediately if a rider falls off. Second, a reindeer is shorter than a horse, so the fall is a shorter distance and will likely have less serious effects. When I fell off my reindeer, Pensioner, he stopped immediately, and I felt that he was more scared than I. Pensioner looked at me with his big eyes as if to ask, "What is wrong with you? Why did you fall off?" If a rider falls, he should check the saddle; it needs to be symmetrical to maintain a good balance while riding.

It usually takes four days to train a reindeer to carry a pack and a human being. First, in the fall, a hunter-herder chooses a *döŋgür*, a two-year-old bull with a strong back, who will become a *chary* the following spring. They are the first to be castrated. In spring the training begins. Before the training starts, the main stalk of antlers is cut, leaving twenty centimeters in order to minimize the inconvenience for a rider during the training process. The trainer should be careful because it is dangerous to approach a reindeer from the front. Although the reindeer does not bite or kick its rear legs, as a horse does, it kicks only with its front legs, called the *holdar* (arms). Teenage boys or young men usually play the role of trainers in this process of building communication with the

potential *chary*. These trainers are lighter in weight than the adult men and are strong, agile, and quick at their young age to handle the sudden movements of the reindeer. A trainer catches the young reindeer and loads pieces of wood on his spine in order for it to become accustomed carrying a load. The reindeer is forced to stay with this load for the next two or three days to adjust to its new role before it will be ready for the saddle. The main purpose of this is to tire the reindeer enough so it will be unable to fight back against its rider. The trainer offers salt to familiarize the reindeer with him scent. The reindeer needs to get used to the rider and realize what the human wants it to do in advance. The Tozhu stress that the first training actually starts the second or third day after the calves are born, when they are tied to the stakes. The calves buck and cry for the next two to three days, and then gradually give up their resistance and accept being tied up.

It is critical to tie calves at this early age; otherwise, controlling them in the future will be impossible. Because of this practice, the bulls buck briefly but are quickly controlled (in comparison to horses). A halter, *chular*, is an effective means to make the reindeer more responsive to handling. Any pulling of the halter causes discomfort to the reindeer, and it reacts quickly to any pulling. When the rider sits in the saddle for the first time, the reindeer shows confusion and will turn sharply around in order to throw the man off. In this case, the rider strikes the antlers lightly with the *dayangysh* to stop the reindeer from making these turns. For instance, if the bull turns to the left, the rider strikes the left antler, and if the reindeer turns to the right, he strikes the right antler. These strikes are enough to make the reindeer stop turning and respond to rider commands.

According to Darzha (2013), herder-hunters, knowing a reindeer's gregarious behavior, use another successful technique during the training. The second rider rides a well-trained *chary,* and the trainer makes the novice move in the required direction, particularly to follow after the *chary*. This technique is quite effective because the young reindeer is responsive to the rider and can be directed with less bucking. It usually takes up to four days for the reindeer to become familiar with the saddle and rider and to understand his commands. Training is a challenging task because initially the reindeer resists listening to the rider and tries to throw him off. Rider patience is a vital part of this process. Hitting and kicking the reindeer is an inevitable part of training, and the rider asserts himself "as the dominant individual and reinforcing the offending animal's submissive status" (Fijn 2011:147). Sayzana told me that in the past they had a case in which the trainer lost control and broke the reindeer's neck in a rage. Such cases happen seldom, but it

demonstrates that the trainer needs to be patient. It is important to note that herder-hunters know how the reindeer behaves in the extreme situations. If a reindeer becomes scared, he does not jump or stand up on his hind legs as horses do. He immediately moves to the side from a threatening object, *byyldar* "to shy away from fright," or he turns 180 degrees and runs away. In this case, the rider loses his balance and falls off (Darzha 2013). The rider needs to react quickly to such behavior not to lose control over the animal.

After this process of training is complete, the *chary* is ready to be ridden. Although the time span of training is short, the reindeer's handling takes intense control. In the beginning only men ride this novice because he it is not committed fully to obeying the rider's commands. It takes time for the reindeer to adjust to this activity. In addition, some trained *charylar* are not ridden; they are used only for packing in the beginning. Later, they can be used as *munar chary*lar (riding reindeer). According to Darzha (2013), the Tozhu distinguish four types of gait—*chokta, eshkedeer*, *sayaktadyr* or *sayak*, and *chyraalaar* or *chyraa* (see Darzha 2013 p. 228-229).

Another reason reindeer are privileged over horses is that they are better able to orient themselves in the taiga than horses. Spatial orientation in the taiga plays a crucial role, because visibility is limited by dense bushes and trees that create naturally impassable barriers. Academic literature about human spatial orientation is quite extensive (Adaev 2015, Aporta and Higgs 2005; Gladwin 1964, 1970; Ingold 2000; Istomin and Dwyer 2009, Dwyer and Istomin 2009; Nelson 1969; Carpenter 1973; Reuning 1988; Wildok 1997), but only a few articles include spatial orientation with the help of animals (see e.g. Adaev 2016). For the last three decades, two wayfinding theories, the "mental map" and the "practical mastery" theories, have been hotly debated in anthropology, psychology, and geography, because these theories conflict with each other (Gell 1985:172 in Istomin and Dwyer 2009). The "mental map" theory can be exemplified best by the following passage: "This theory supposes that way-finding is carried out in the light of stored spatial information in the form of a "mental map" of the terrain plus, presumably, some inferential schemes for converting this information into suitable practical decisions and actions" (Gell 1985:272 in Istomin and Dwyer (2009). In contrast, for "practical mastery" theory "practical wayfinding" is "informal, subjective, and based on habit and familiarity" (Gell 1985:273), and "intrinsically linked to the activities, perceptions, and bodily attitude of the subject" (Gell 1985:273). According to Istomin and Dwyer (2009), based on the analysis of human spatial orientation among the Komi and the Nenets reindeer herders, the theories should be considered to

be complementary to each other since "humans beings have and use both mental maps and visually remember routes (vistas) while navigating" (Istomin and Dwyer 2009:41), and an "individual's navigating method, ability, and the form of the mental map is likely to depend on a situation as well as on factors such as age, sex, familiarity with the environment, and life history" (Istomin and Dwyer 2009:29).

4.4 Wayfinding with Reindeer and Dogs

It is important to note that the Tozhu, in their everyday activities, rely heavily on land knowledge as well as their animals' wayfinding ability. Herder-hunters lead a mobile lifestyle, migrating up to fifteen times a year and moving from ten to fifty kilometers between seasonal pastures and hunting grounds. Typically, they follow well-established routes, and their movement is characterized vertically as they go up and down mountains and hills. They know their territory, migration, and hunting routes in detail and orient themselves well in the taiga, indicating that they utilize the mental map approach to navigating. When herder-hunters move, they use landmarks like forests, rivers, lakes, hot springs, mountains, and hills. In other words, reindeer herder-hunters "must be able to envisage and predict aspects such as how the animals move and at what speed, when and where they split into groups and how these groups behave, and which places are associated with reindeer mortality" (Istomin and Dwyer 2009:38). In an earlier publication Dwyer and Istomin (2008) also said that performing such tasks successfully depends "firstly on the ability of the herder to perceive and react to the herd's behavior" (Dwyer and Istomin 2008:526). However, visibility can be dramatically reduced by fog, snow, or darkness in the taiga, especially during the hunting season, when herder-hunters spend all of the daylight hours hunting animals. In the case of fog and snow, they are faced difficult navigating tasks, which they either must solve or risk their lives. One of the traditional wayfinding solutions is to rely heavily on animals. Adaev's study (2016) among the Nenets reindeer herders demonstrates that reindeer have an advanced sense of smell and can smell a reindeer herd from a long distance in the tundra. Reindeer have better senses of smell and hearing than their sense of sight. In winter, with a headwind, they can discern a strong smell from a distance of twenty-five to thirty kilometers. Reindeer can follow the smell of a scent gland (which is situated between the hooves) left by other reindeer, if the conditions are right. The Nenets stress that while driving a sled, if reindeer sense a nearby reindeer herding camp, they usually sniff and turn their head to the direction from which the smell is

coming. They usually begin to run quickly to the camp. In this case a reindeer herder releases the harness and lets the animals find their way to the camp. It is important to note that there is a decrease in their olfactory ability in summer because of the presence of other competing odors.

Adaev (2016) points out that a lead reindeer of a sled plays an important role in wayfinding in the tundra, although reindeer herders have sometimes opposing opinions about the nature of the lead reindeer. On the one hand, some Nenets state that only well-trained reindeer possess good navigating skills. On the other hand, the majority of reindeer herders stress that it is impossible to train a reindeer to learn wayfinding, that a reindeer knows the environment innately. However, the lead reindeer is considered better than other reindeer in finding the way home when visibility is reduced, during a snowstorm or at night. If a reindeer herder is lost, he relies heavily on the lead reindeer, who will find a route home, pulling the sledge in the right direction. If a herder drives his sledge in the wrong direction instead of going home, the lead reindeer will begin to pull the sledge in the right direction, letting the herder know he is wrong. In addition, a herder usually trusts the lead reindeer, when he travels at night through dangerous terrain with many deep dips, slopes, and gullies, all hidden under snow. If the leader suddenly stops, a herder must properly check with his riding stick, *khorey*, to determine if the sledge is at the edge of a steep cliff or a deep gully before continuing his travel. Reindeer herders also easily interpret the behavior of their lead reindeer: it sneezes when a reindeer herding camp is ahead; it stops suddenly when wolves are around; and it slows down when bad weather is on the horizon. If the lead reindeer often stops and runs with its head down, that means a snowstorm is coming (Adaev 2016).

Reindeer are not the only animals used to practicing a traditional wayfinding technique. Dogs manage to guide themselves, finding their way, over large distances. According to Adaev (2016), the Nenets use Laika dogs when they search for reindeer in the tundra and to bring them back to the camp. In this case, they usually walk with their dogs. They do not take dogs on the sledge because reindeer become nervous and anxious about the dogs' presence and will refuse to move. Reindeer are not used to having dogs so close to them and perceive them as a threat. As mentioned before, not every leading reindeer is good at wayfinding. For instance, the forest Nenets rely heavily on dogs in navigating through the tundra. They travel with them by tying them to the back or side of the sled. If the leading reindeer does not put effort into finding the right direction, the herder lets the dog go in front of the sled to lead them the right way. Moreover, the Nenets use dogs of contrasting colors: in winter, they use black dogs in order to see them well in the snow or

the darkness; in other seasons, they use white dogs. If a herder is lost, a dog can follow him for several days. When this happens, the owner needs to stimulate the dog to bring him back home, by talking to it with an angry voice or just scolding it. As a result, the dog will return home, and the owner will follow after it. Adaev (2016) emphasizes that dogs are more reliable partners than reindeer because they have a better sense of smell; they are stronger in pulling a sledge, dogs' paws do not slip on the snow or ice as reindeer hooves do, and they do not leave their owner if he falls off the sledge; reindeer will leave him behind.

In the Tozhu situation, herder-hunters stress that one of the important differences between reindeer and horses is that reindeer have better spatial orientation abilities than horses. The taiga is a natural environment for reindeer; they have a keen instinct to perceive the right direction and location in the taiga. Reindeer play an important role as an animal version of a "GPS"[80] for humans in the taiga, particularly the old *charylar* who have a great "internal compasses." In the darkness or the fog, the herder-hunter relies on their internal guidance system. If a hunter-herder is left behind without his reindeer in the taiga, it is a disaster that can lead to a fatal outcome. In fact, reindeer easily cover large distances in swampy places that horses are not able to cross. In general, the mobility of horses is restricted by the mud and swamps while moving in the taiga. With horses, the Tozhu use mostly circular (as opposed to linear) movements to avoid swampy places. They have to use the "horse path," and their travel is quite challenging. With reindeer, they move using the "reindeer road," and travel is comparatively easier than with horses. In addition, reindeer riding is colloquially compared to driving an *inomarka*, a foreign vehicle, because is smooth and the reindeer's legs touch the taiga ground softly. Horseback riding is compared to driving YAZ, a Russian jeep. There is great physical discomfort during horseback riding in the taiga. As Anoka commented about horseback riding: "After several days of tough riding, I feel that my brains are completely shaken." The Tozhu possess the core knowledge of each species' particular behavior and integrate aspects such as how different animals move and at what speed, which routes they should take, dangerous places that can cause injuries for each species, and how weather conditions can reduce mobility and visibility.

By contrast to tundra reindeer, among which a lead reindeer plays such an important role wayfinding in the taiga, any riding reindeer is capable of finding its way. Moreover, herder-hunters sometimes use shortcuts, and their reindeer are not only able to find the route, but they also are

[80] This comparison is made by the Tozhu describing dogs finding prey.

capable of finding the shortest route home. In other words, they will bring a herder-hunter home sooner. Older and experienced reindeer work better cooperatively with the herder-hunter than younger reindeer; they can better understand what a human wants. Although dogs often accompany their owners during hunting trips and have an incredible sense of smell and homing instinct, they are not always reliable in terms of orienting themselves during bad weather. By the end of the day, some dogs, tired and starving, can leave their master and return to camp by themselves in search of food. Typically, herder-hunters value dogs that do not leave their master in the taiga and remain by the owner's side. In my research, I observed that Andrey's dogs sometimes came back to the *aal* before he arrived. The time difference between dogs and Andrey's arrival was usually thirty or forty minutes. The longest difference I observed was one and a half hours. Ideally, two hunting partners must accompany a herder-hunter: a reindeer that is a 'living GPS' and is able to bring a herder-hunter home, and a dog that is a loyal friend, with whom a herder-hunter has a strong relationship and with whom he feels safe in the unpredictable and unforgiving taiga. When a snowstorm arrives, and darkness sets in earlier than normal, it becomes impossible to orient in such poor conditions. If a herder-hunter cannot orient himself in the taiga, he releases the harness, letting his reindeer know that it is time to return home. For example, one late December afternoon Anoka was caught in a snowstorm when he was returning to the *aal* in the evening. He could not see anything in the darkness, and he realized that he did not see his dog Kulak either. Although Kulak was loyal to Anoka and never left him in the taiga, he thought, "*Ekh*,[81] Kulak left me. I did not expect it. This is not a true taiga dog!" All of a sudden Kulak showed up on his right side, and Anoka was happy to see her. "This my Kulak, she did not leave me. This is a true taiga dog!" When I asked him why he needed her, when his reindeer would bring him back to the camp, he replied:

> Anything can happen in the taiga. Imagine, if I would stay there without my reindeer, at least my dog would find the way to the *aal,* but it would be difficult to go through the deep snow there during the snowstorm and darkness. If I stayed there, Kulak could warm me, and I would not be alone in the taiga. A dog is a man's best friend. You cannot be alone in the taiga during the snowstorm. It is a bad situation. It means only death!

The reindeer is thought to be the most important partner in navigating the dark taiga surroundings when visibility and mobility are significantly reduced, while dogs are perceived as less reliable overall because they can go far away chasing a wild animal or return to the camp

[81] A Russian interjection, showing sadness or disappointment.

independently before the herder-hunter arrives. Both in the tundra and taiga, reindeer herders rely heavily on their animals, and their particular use depends on their knowledge of the behavior of each species. Future anthropological work could potentially contribute to knowledge of these subjects by providing examples of how different people use their animals navigating within particular environments.

In the taiga, the nomadic way of life, with few inhabitants in a large area, leads to isolation. It is crucial to maintain social ties with the neighboring *aals,* as they are the link to the community, district, and the outside world. People visit each other to hear news, have conversations, or ask for help or advice. In August 2012, we went to visit neighbors who lived two taigas from Sayzana's *aal.* It took an hour of reindeer riding to arrive. I met a couple, Cheyneshko and, his wife Galin-Kys. I observed that Galin-Kys was strange: she served us food, but she showed no interest in us. She did not participate in the conversation and did not smile. Most of the time she stared at one point on the ground. Later, I asked Sayzana about Galin-Kys' strange behavior. She told me the following story about Galin-Kys.

Galin-Kys lived in Adyr-Kezhig taking care of two daughters.[82] She usually came to the camp with the youngest daughter during summer break. The oldest teenage daughter preferred to stay in the village because life in the *aal* was too monotonous and boring for her. Although both Galyn-Kys's parents were school teachers, Galyn-Kys never went to college. When she married Cheyneshko, she learned to live in the taiga. When it was time for their older daughter to go to school, Galyn-Kys chose to live in the village. She was unemployed for a long time. Without education and necessary skills, she was not a qualified applicant for many jobs. Galyn-Kys lived with her children and her mother on her mother's retirement money.

At the beginning of March 2010, Cheyneshko went to Adyr-Kezhig where he and his wife drank a large amount of alcohol. Then they came together to the *aal* and brought some vodka with them. They continued drinking there. In the evening the couple had a fight and Galin-Kys disappeared. Cheyneshko fell asleep and when he woke in the morning, he realized that his wife was missing. Galin-Kys had wandered away from the *aal* without the reindeer and was lost. Cheyneshko started an intensive search, and people from other *aals* joined him. After a few days of searching, it was clear that she had gone very far away. Although Galin-Kys had spent much time in the taiga and had solid outdoor skills, she did not have any food with her or matches to

[82] In June 2015 her oldest daughter was 19 and gave birth to her first child.

build a fire. It was the beginning of spring, and she could barely find any frozen berries to eat. The worst part was that the temperature dropped drastically at night, and she was in danger of exposure to the cold and freezing to death. The herder-hunters grew pessimistic about finding the woman alive and stopped looking for her; only her husband kept searching for her.

Fortunately, on the seventh day, Galin-Kys was rescued by the kommersant, who was driving his huge truck on the dirt road to the meeting point to barter with the herder-hunters. Although Galin-Kys survived, this story did not end happily. The woman could not remember what she exactly was doing in the taiga. She could recall that she had not been able to determine which direction to go, and thus she walked for several days. She was scared and felt lonely, but one day met a beautiful woman who was kind to her and showed her the right direction: that was how Galin-Kys came to the dirt road. Galin-Kys returned to the *aal* not the same person as she was before. It was evident to her family that she had lost her mind. Her actions following her ordeal were bizarre, and her normal traits and behaviors became distorted. Before getting lost, she had been sociable and active; she enjoyed cooking, having visitors and talking to them. After the tragedy, she became quiet and no longer talked to her family or other people. She became another person. Sometimes Galin-Kys smiled or laughed without any reason. At these moments she claimed that the beautiful taiga woman came to visit her, but people around her saw nothing. Her heart was full of joy and she was happy to see her savior, to whom she was grateful. Although the herder-hunters realized that she had lost her grasp on reality, they all believed that the woman she met in the taiga was taiga *eezi.* Herder-hunters believed that she met a taiga *eezi* while roaming in the taiga and this taiga *eezi* showed her the right direction towards home.

It was difficult for Cheyneshko to look after his wife, but the situation in the village became worse because Galin-Kys started to drink excessively (before she had drunk comparatively moderately) and she drank together with her mother, who also struggled with alcohol issues. Galin-Kys asked for money from the villagers and was very aggressive towards women, demanding money to buy alcohol. This alcohol abuse had a devastating effect on Galin-Kys and made it difficult for her to discern right from wrong. She became a willful woman, utterly disregarding the feelings and wishes of those who were around her. According to the social worker, Galin-Kys mostly acted strangely because it was a convenient way for her to do things that were forbidden. The social worker thought that most of the time she was feigning madness. After Galin-Kys was warned that she would lose her parental rights due to her alcohol abuse, she stopped drinking for

a while. However, Cheyneshko was in the taiga with the herd, and Galin-Kys's old alcoholic mother could not properly take care of her. Additionally, the family did not have the means to take Galin-Kys to mental health providers in the capital to treat her mental disorder. She was never diagnosed, nor did she receive proper treatment. Cheyneshko worried about her and wanted to prevent her from drinking in the village by having her stay often in the taiga.

Once we went back to the village together with Galin-Kys and her daughter, and Cheyneshko accompanied us. We reached the meeting point, the abandoned gold mining company Oina, where the car was supposed to retrieve us. On the following day Galin-Kys went to the taiga barely remembering why she went there; Cheyneshko followed her immediately. The next fall, she again went into the taiga without the reindeer. The herder-hunters searched for her, but she did not go far away. She was found in the late afternoon. It was clear that the *aal* was no longer a safe place for her. Herder-hunters consider going into the taiga without the reindeer during the cold season to be tantamount to death. People can easily become disoriented when it is snowing or foggy. The only human beings in these remote regions are herder-hunters and it is rare to meet hunters, who usually come from the capital or other provinces in summer. Once Anoka told me, "No reindeer, no us" (Tozhu), and after witnessing Galin-Kys's family tragedy, I realized that reindeer are the most reliable means of transportation in the taiga; sometimes human life completely depends on their internal navigation systems.

People believed if Galin-Kys had ridden a reindeer, she would never have been lost in the taiga and would have returned back home safe to begin with. However, some women expressed to me a different opinion regarding Galin-Kys' behavior and the taiga *eezi*. They pointed out to me that after the collapse of the Soviet Union, the villagers became spoiled, particularly the younger generation; without jobs they became lazy, they drank too much, and forgot about the taiga law. One elder commented: "You cannot expect much from spoiled villagers. They are often something lazy and unmanageable in the taiga." According to these women, Galin-Kys belonged to the group of spoiled villagers, and it was completely her fault to be lost in the taiga. Her condition was a consequence of her bad behavior and the fact that she preferred to stay in the village unemployed, spending time socializing with alcohol rather than to be with her husband in the taiga. In Tozhu hunting culture, care, patience, and endurance are essential for survival. The taiga is a tough place to survive. If someone neglects her basic life skills, this mistake can be fatal. When going to the taiga, a Tozhu needs to be focused, calm, alert, and to have good judgement. That tragic evening,

drunk Galin-Kys, drunk, running into the taiga was aware that she was making a mistake, but she did not care about the consequences of her behavior. Her big mistake was leaving the reindeer behind, which is regarded by the Tozhu as fatal: "*bez olenya v taige—smert*'" (without a reindeer is death in the taiga). It follows from the above discussion, that human behavior in the taiga is linked to intentionality and morality and that humans' fate in the wilderness can be tied to the presence or absence of their animals. Although the women with whom I talked did not mention the taiga *eezi*, they made clear that Galin-Kys was punished for her inappropriate behavior by taiga *eezi.* According to Purzycki (2016), *cher eezi* are primarily concerned with rituals, and "ritual functions to strengthen bonds and promote trust and that supernatural agency detection can decrease antisocial behavior." (Purzycki 2016:100). These supernatural agents are concerned with "human morality and virtue, particularly alcohol use and abuse" (Purzycki 2016:99). Purzycki (2016) states that alcohol abuse is a relatively recent social problem but has already become part of the model of the gods' "moralistic" behavior. The author hypothesizes that the gods' concerns will co-evolve as the community experiences new social and economic problems. In mountainous taiga *eeziler* are considered the most powerful among all supernatural entities. Throughout the taiga belt, taiga *eeziler* are linked to the moral code, the "taiga law," as well as local practices. In contrast to other *eeziler*, taiga *eeziler* are not much concerned with performing rituals or erecting ritual cairns. They usually firstly care about following the "taiga law" that helps people live and behave in accordance with the common moral principles such as showing respect and caring for others. Running to the taiga, without a reindeer, in the darkness, in the early spring was not a solution to Galin-Kys' problem. In this hunting culture, people should be patient and not make impulsive decisions that lead to life-altering consequences. Galin-Kys' impulsive behavior was perceived as violating one of the principal life skills—a breach of survival wisdom and social conduct. Moreover, Galin-Kys' alcohol abuse was another violation of the "taiga law." These violations were monitored and punished by the taiga *eezi*, although in the end the taiga master helped Galin-Kys to find the right direction back to the camp.

4.5 Conclusion

The Tozhu community can be considered a hybrid human/animal community (see Lestel et al. 2006), in which humans and animals live together in the shared taiga environment—a community characterized by mutual reciprocal relationships among reindeer and humans (and

other species to be discussed in coming chapters). The heart of reindeer domestication lies in the human quest for tamability: the early hunter-foragers developed their own breed standards for 'super docile reindeer' that could be easily managed and made to suit their applications. Because of the herder-hunters' need to see reindeer as extensions of their bodies, they bred reindeer that are docile and have fewer temperamental defects. Tameness describes how well animals will be adapted to a human environment, particularly to carrying loads, including humans, and tolerating being milked. The most important means of adapting reindeer to human beings are partial captivity and selective breeding. Tethering, for example, can be considered to be a form of partial captivity; this common, old practice serves to create primary bonds with the human environment. Herder-hunters balance time spent between captivity and free range, by tethering calves during the day and letting them roam in the evening. Tethering is done for the first six to seven months. Thus, the calves learn gradually to cope and adapt to humans. When the calves are not tethered, they eat and interact with the other reindeer.

The formation of human-animal relationships has two determinants. First, the Tozhu herder-hunters have to act in a dominant manner toward their animals in order to retain control over them. This behavioral domination is a necessary feature in gaining a high degree of trust with the animals later. Second, the Tozhu have relationships with their animals, particularly with the reindeer, based more on trust than domination. Herder-hunters highly value their animals and treat them with respect.

In order to achieve hunting success, herder-hunters use a wolf-pack approach by imitating the behavior of wolves; they effectively take advantage of the ongoing domestication process of their canids. They maintain multispecies relationships to expand their hunting abilities, allowing them to utilize the strong legs of ungulates and the good sensory abilities of canids. Ungulates and canids not only cooperate with humans, but they also cooperate with each other in achieving success while hunting.

The prolonged co-existence of humans and reindeer required adaptation from both sides. Hunter-foragers bred their reindeer to be larger and more docile, striving for 'super docile,' reliable companions in the harsh taiga conditions. This inevitably has meant that, over the past hundred years, humans have had to adapt to reindeer morphology. In many ways, they have succeeded in fulfilling the role of 'wolves,' to the point that, through mate selection practices, they sought to maintain a small body size and light body weight in their offspring. At present, the Tozhu have

small bones, a short average height, and less body weight in general, allowing them to ride reindeer for long hours across the challenging terrain. The greater the weight of the human rider, the more likely that damaged vertebrae will affect the long-term welfare and usefulness of the reindeer. In order to avoid harm caused by excess rider weight, it is important to reduce human body weight, selecting for size and physical activity. It was inevitable that emphasis on reindeer function and body size would lead to reciprocal human adaptation to reindeer morphology. In addition, a small rider can maneuver well enough to capture a wild animal in dangerous terrain.

The reindeer are the most important animals for herder-hunters. The Tozhu identify reindeer by categories of age, sex, color, fertility, gait, and individual personality. Their special terminology reflects different reindeer life stages and behavioral characteristics of the animals and the importance of the animals to herder-hunters, whose lives completely depend on the reindeer in the taiga. The reindeer, particularly a working *chary,* becomes a personified being, contributing to the hunting of game due to its superb internal navigating capabilities and capacity to cooperate with its human counterparts. The reindeer is the heartbeat of the remote taiga because the reindeer-human connection is intimate and inextricably mutual.

CHAPTER 5: THE BEST HUNTING PARTNERS

5.1 Indigenous Breeds of Dogs in Tyva

This chapter presents an overview of the diversity of dog breeds, which are used primarily for hunting in Tyva, as well as southeastern Siberia and Inner Asia. It mostly focuses on the hunting breed, the Laika, commonly used in the taiga type of reindeer herding. Taiga reindeer herding is quite different from tundra reindeer herding. The Tozhu herder-hunters have a deep relationship not only with reindeer, but with dogs as well. This dissertation seeks to illustrate not only human-dog relationships, but also the synergistic effectiveness of dogs working alongside the herder-hunters, the success rates of hunting with dogs, and the strategies herder-hunters employ using hunting dogs. In order to advance our understanding of these topics, it is necessary to study both human and animal behavior in the taiga reindeer herding and hunting system.

Siberia is home to some of the most ancient Eurasian breeds of domestic dog *(Canis lupus familiaris)*. The theory that the domestic dog is descended from the gray wolf (*Canis lupus*) is widely accepted, but scholars still argue where and when the initial process of domestication took place. There are two main hypotheses regarding dog domestication. First, Raymond Coppinger (2002) proposes that prehistoric humans and wolves became engaged in mutually beneficial relationships. Some wolves domesticated themselves by scavenging leftovers in the rubbish heaps scattered near settlements or kill sites. The second theory supports the idea that wolf cubs were captured, nurtured, and trained by humans to serve as guards (Serpell 1989). Genetic studies of modern dogs and wolves have offered conflicting hypotheses on the origins of domestication. Some suggest single origins in East or South Asia or the Near East; others support multiple occasions of domestication including hybridization with local wolves (Ding et al. 2012, Pang et al. 2009). In addition, studies based on mitochondrial genome analysis of ancient fossils suggest domestic dogs evolved in Europe (Germonpré et al. 2009, Lee et al. 2015, Thalmann et al. 2013). The oldest dog-like fossils, found in Western Europe and the Near East, date to 14,000 BC (Davis and Valla 1978, Napierala and Uerpmann 2012). Olaf Thalmann et al. (2013) state that molecular timeframes for the onset of domestication range from 18,800 to more than 32,100 years ago. Moreover, findings support the hypothesis that European hunter-gatherers initiated the domestication process of dogs before the emergence of agriculture. Although DNA evidence is quite controversial, recent fossil records demonstrate that original domestication may have been

due to sedentism and suggest that early dogs may have been morphologically wolf-like (Vilà 1997). A study of fossils and DNA points to an earlier date of forming human-canid relationships, over 100,000 years ago (Taçon and Pardoe 2002).

Archeological and historical data, including Holocene dog burials (Losey et al. 2011) and petroglyphs, provide evidence that dogs have been used for guarding herds of livestock and hunting for at least 10,000 years in southern Siberia and Inner Asia (Devlet 1982, Svinin and Ser-Odzhav 1975, Vainshtein 1971). According to Robert Losey et al. (2011), for the past few decades little has been done to develop explanatory frameworks for dog burials. Large concentrations of petroglyphs were common in the territory of Tyva and Mongolia. Marianna Devlet (1982) studied a large concentration of the petroglyphs carved and incised on the cliffs of the Upper Yenisei River basin of the central part of Tyva, particularly the petroglyphs along the path known among the locals as "Genghis Khan Road." These petroglyphs are dated approximately from the Bronze Age to the Middle Ages. They vary considerably from one society to another and from one age to another. The problem with Soviet Tyvan archeology is that it developed in association with the Institute of Archeology RAN and the State Hermitage Museum, which were mostly interested in the natural history of man, preoccupied with chronology and refinements in methods and overcoming the difficulties in determining the particular age of an artifact, and interpreting the cultural and religious significance of ancient images and the larger prehistoric worldview of the society, leaving aside almost entirely canine domestication and human-canine relationships. Ultimately, the interpretation of religious practice and worldview depends on ethnographic analogies. Considering the limitations of Soviet and post-Soviet Tyvan archeology, there is no information where and how dogs were domesticated in southern Siberia.

Some petroglyphs vital to resolving the mysteries of human-canine bonds existed in the territory of Tyva. The Early Iron Age, or so-called Scythian period, is an interesting chapter in human prehistory, ranging from the years 700—300 BC in Tyva. Petroglyphs from this period are extensively documented, and are evidence for the emergence of both herding tribes as well as those tribes that combine herding with agriculture on the vast territory of Eurasia. Some of this petroglyph imagery displays hunting scenes from early historic communities. A typical hunting scene involves humans using dogs to hunt big game, usually mountain goats or deer.[83] According to Devlet (1982), the curled tails of dogs show a clear sign of domestication (Figure 18). In

[83] Archeologists still debate which animals are carved, deer or reindeer.

contrast, wolves are portrayed as larger with straight tails pointed down. A complete explanation for the hunting scenes (for instance, a full understanding of the techniques and strategies of hunting) still remains elusive. In addition, patterns of human-animal relationships, specifically human-canid, are completely ignored here.

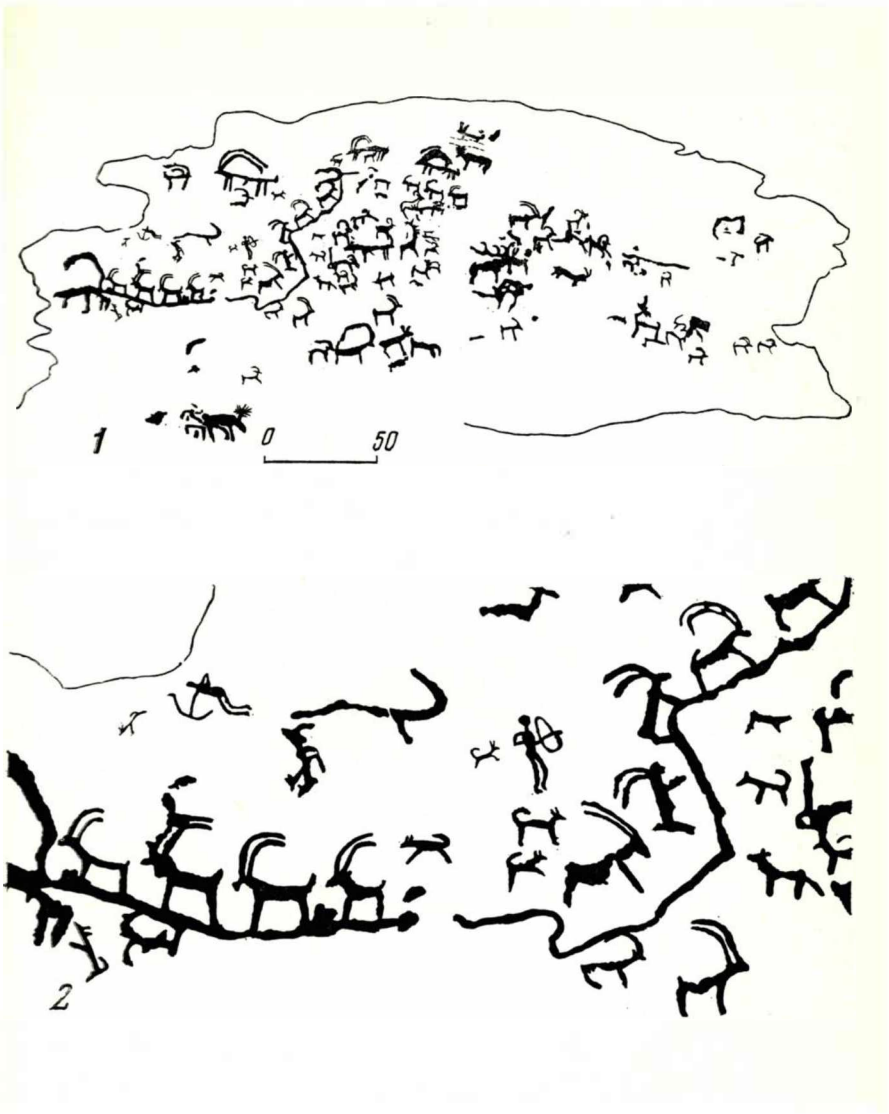

Figure 18. Petroglyphs on the cliff of the "Genghis Khan Road." Source: Devlet (1982:71).

According to Darzha (2013), the Tyva kept three indigenous breeds of dogs in their nomadic camps in different landscapes throughout Tyva, such as the Kadarchy Yt (Bankhar), the

Tyva Laika[84] (East-Siberian Laika), and the Taygan. For a long time, these dogs have played an important role in nomadic life in Tyva. In the steppe and mountain zone the most popular and widespread dog breed is the Kadarchy Yt (Figure 19). Prior to 1997, this dog was not known as a separate breed, largely due to Russian authority confusion differentiating between indigenous breeds and mongrel dogs. These dogs can be found in several regions of Asia: the Republic of Buryatia, the Republic of Tyva, Mongolia, some parts of the Irkutsk province, Zabakal'skiy region, Inner Mongolia in China, and the Semipalatinsk region of Kazakhstan (Ivanova 2003).

Figure 19. Kadarchy Yt: Madyr, Khüreŋ -ool, Vasilisa Argachy. Courtesy of Svetlana Kashtanova.

All of them are distinct subbreeds but are still very similar to each other. They are officially called the Buryat-Mongolian shepherd, or the Khotosho in Buraytia, and are referred to as the Barkhar in Mongolia. These subbreeds also have many names in different regions, the most popular are Buryats, Mongols, Tibetans, or even the Dogs of Hunnu (*Hotosho Buryat-Mongol'skiy volkodav* 2011).[85] This dog was referred to by the Tyva as the Kadarchy Yt (shepherd dog). In the 1990s, this name gained official recognition. This dog is also known in Russian as *Tuvinskaya ovcharka*

[84] I will use this term because the Tozhu call it Anchy Yt (hunting dog). It is officially recognized as the East-Siberian Laika.
[85] Nomadic tribes rule over this vast territory of Asia.

(Rus. Tyvan shepherd) or *Tuvinskiy volkodav* (Tyvan Wolfhound). The Kadarchy Yt is similar to other types of herding shepherds, but these different types vary slightly in coats, color, sizes, and temperament, depending on their historical origin and primary use. For instance, the Tyvan breed is lighter than the Mongolian Bankhar (Vengrus 2015). Experts in Russia and Mongolia have been developing strict standards so these breeds can be recognized separately. Another noteworthy detail is that there is no effort to replace all varying breeds with a single breed; there is thus not one accepted, all-encompassing name. I will subsequently use the term the "Buryat-Mongolian Shepherd" for all these subbreeds.

Early information accompanying these shepherds ranged from sketchy to anecdotal. The famous traveler Marco Polo (1948 [1845]) was the first European to mention this breed. Polo was so impressed by them that he brought one dog back home to Venice. Erich Von Salzmann (1903) describes this shepherd as a big, beautiful dog similar in size to a German Shepherd. It has a dark coat and is very fierce; the Buryat-Mongolian Shepherd attacks strangers mercilessly. Wilhelm Filchner (1929) gives an interesting account of a wild, big dog-monster the size of a bear. Children can play with these sensitive dogs, but these same these dogs are not afraid of wolves and bears.

It is believed that the Buryat-Mongolian Shepherd is the oldest dog breed in Asia. Vasiliy Mal'ginov (1932) assumes that this dog is a regional type—in this case, from the former Burayt Mongolian Republic;[86]—and is a Mongolian version of the Tibetan Mastiff. According to Il'ya Zakharov-Gezekhus and Svetlana Kashtanova (2009), as the Asian yak traders and explorers migrated, their dogs spread across the steppe and mountainous regions of Inner Asia. This assumption is widely accepted by many cynologists, but some authorities do not agree with this view. Recently, bones of domestic dogs were excavated in an archeological site of the Huns' settlement in the Ivolginskiy district, in the outskirts of Ulan-Ude in the Republic of Buraytia (*Hotosho Burayt-Mongol'skiy volkodav* 2011). The bones found bear similarity to the Buryat Mongolian Shepherd breed. According to new data, the Tibetan Mastiff is a descendant of the Buryat-Mongolian breed rather than an ancestor, as often thought. There is a strong possibility that these dogs have ties to Tibetan dogs and other indigenous breeds of Central and Inner Asia.

As for the Tyvan breed, the Kadarchy Yt is regarded as an intelligent working dog with strong protective instincts. It is usually used as a watchdog for sheep, cattle, or camels. It is large and strongly built, with a robust bone structure. The Kadarchy Yt has a thick coat with long fur,

[86] This is the old Soviet name for the Republic of Buraytia.

which allows it to thrive in the extreme continental climate, from high mountains to semi-deserts, and protects it from mosquitoes (Zakharov-Gezekhus and Kashtanova 2009). In the past, the Tyva had their own standards for this breed. The coat color was supposed to range from light brown to brown to black with white patches on the neck and chest. These dogs were called *Moynak* or "white neck."[87] This description was considered the correct version of the breed. The Kadarchy Yt is full of stamina and fast to react. Darzha (2013) states that because of the size and aggressiveness, this breed is brave and intrepid; it attacks gray wolves, snow leopards, brown bears, and eagles fearlessly. Typically, the Tyva consider it to be a fearless wolfhound. Darzha (2013) points out that these dogs were trained to attack a rider on a horse by jumping onto the saddle. The Kadarchy Yt is a perfect multi-purpose dog, and it was also used to hunt wolves who bothered nomads by attacking their domestic animals. Growing up in relative freedom, as other indigenous breeds, the dog is quite independent and not suited for urban life or living indoors. This breed is loyal to its owners and gentle in its behavior with children. The Kadarchy Yt is attached to the camp and protects it from predators and strangers. These traits are the result of selective breeding over centuries (Ivanova 2003, *Hotosho Buryat-Mongol'skiy volkodav* 2011, Darzha 2013, Vengrus 2015, Mal'ginov 1932, Molossersdogs.com 2003, Zakharov and Kashtanova 2009).

Tyvan herders heavily relied on the Kadarchy Yt as the protector of their herds. Darzha (2013) states that in the recent past herders usually kept two dogs, a male and a female. The dogs seldom spent time in the camp; they often roamed around the camp vicinity or moved to a higher place in order to observe the camp. If a wolf showed up around the camp, the two Kadarchy Yt would attack it. The male attacked in front, biting the neck, ear, or throat. His main goal was to distract the wolf's attention. The female attacked from the back and bit a lower part of the vertebra. Her main task was to injure the wolf seriously. Depending on the situation, the dogs switched their positions. The Kadarchy Yt used this strategy when they attacked predators, enemies, or unknown humans.

In the past, the Tyva used the Kadarchy Yt not only for protecting livestock but also for hunting purposes, for instance, in wolf hunting. The fast Taygan (another indigenous dog breed) chased the wolves, while the strong Kadarchy Yt corralled the wolves (Darzha 2013). Until now, the Kadarchy Yt was known as a steppe herding-hunting dog, but this research suggests that people in the taiga belt also used these dogs for only hunting purposes. According to Sikachinskiy (1971),

[87] Any other animal with a white neck may be referred to as Moynak as well.

the Kadarchy Yt usually served as a ruthless hunter that pursued either sable or bear in the taiga districts. Petri (1928) states that the Karagas (the Tofa), also valued the Buryat-Mongolian shepherd dogs. They bought or exchanged them from the Buryats and used them for hunting. During my fieldwork in 2014 in Tozhu, many people recognized the Kadarchy Yt when I showed a picture. Although this district was comparatively isolated in the past, these dogs were popular in the villages. It is hardly surprising that they were used for hunting. An elder, Sergey Kyrganay, told me that some herder-hunters also kept the Kadarchy Yt. According to Sergey, he was the last herder-hunter to keep a Kadarchy Yt in the early 1980s. Sergey could not remember his dog's name, but he remembered well that he was a fearless hunter. His dog was large and aggressive and hunted only big-game animals. Sergey stressed that the Kadarchy Yt is better than the Laika breed in terms of being more aggressive than the Laika and not afraid of a wolf or a bear. Some of the Laika, lacking aggressiveness, are afraid to attack predators. One informant, Ayanmaa Damba from Adyr-Kezhig, told me that her father worked as a ranger in Adyr-Kezhig taiga. His Russian friends gave him a present, a Kadarchy Yt puppy, in 1985. He went hunting with him, but the dog was lost after three years in the taiga.

According to Zakharov-Gezekhus and Kashtanova (2009), the Kadarchy Yt almost disappeared during the Soviet era. Problems started with the breed in the 1950s, during collectivization, when the Tyva were forced to leave their herding camps and move into villages. Each household had several dogs in the herding camp. Some families left their dogs in the camps (Zakharov 2004), but other families brought their dogs to the villages, and their dogs roamed through the village streets. From these dogs, the stray population began to grow. Their number rapidly increased and became a real issue in the rural areas. As Amy Nelson (2006) states, the Soviet regime prescribed certain pet-keeping practices:

> Like more well-studied aspects of the Bolsheviks' agenda, early Soviet attitudes toward dogs were strident and marked by ambivalence. At an ideological level, keeping pets was incompatible both with the revolutionaries' vehement rejection of "bourgeois" culture and public health discourses that identified animals as sources of disease and dirt. The Bolsheviks' visions of domestic space emphasized cleanliness and order. They abhorred the decadence of sharing the comforts of human living quarters with dogs as well as the threat to good hygiene these canines represented. (Nelson 2006:126-127)

Thus, to have a clean and healthy environment in new settlements, the agricultural councils decided that the quickest way to get rid of high number of dogs was to cull them by shooting. Many village dogs, strays and pets, that walked around freely were simply killed without any

selectivity. Slowly but surely, following the Soviet municipal authorities' perspective, streets without roaming dogs became an indicator of cleanliness, as was deemed necessary for human well-being.

Zakharov-Gezekhus and Kashtanova (2009) state that in the middle of the 1950s, local administrations passed an enactment stating that dogs should be kept on a chain or have a neck plate whenever they were outside the yard. Dogs without a neck plate were immediately shot. After more than a decade of systematic dog slaughter, by the beginning of the 1960s many of the Kadarchy Yt had been killed. Running strays and unsupervised dogs were usually caught and taken to municipal dog pounds where they were poisoned, hung, or shot. According to the dog eradication program, dogs "could be put to death if their owners failed to claim them and pay the appropriate fines within five days" (Nelson 2006:139). However, the five-day rule was often violated because it was simply cheaper to kill dogs than to keep them alive for a few days (Nelson 2006). The dog control campaign received public attention because often unleashed and unsupervised dogs were killed. To make things worse, dogs were often shot in presence of children. This method was recognized as being very cruel to children. The public was concerned that children seeing such brutality, would grow to become cruel to other humans, and believed that populated areas should be child-friendly and free of dog drama (see Obraztsov 1974 in Nelson 2006). In 1977, the film White Bim Black Ear was released and became one of the favorite Soviet dramas. It is a sad story about a setter named Bim, whose owner is hospitalized, and who runs away to find him and becomes a stray dog. There is no happy ending because of human indifference Bim is killed at the municipal pound. This story taught children about love and compassion. However, fearing of contamination of large groups of stray dogs, the culling dog campaign continued in urban areas until the collapse of socialism.

Returning to the Tyvan shepherd dog, Zakharov-Gezekhus and Kashtanova (2009) point out that another reason for the decline of the Kadarchy Yt breed was that mixing occurred with other dog breeds brought in by Slavic settlers. In addition, some herders castrated male Kadarchy Yts in order to keep them attached to the camp and prevent them from roaming far. All of this greatly reduced the opportunity to produce purebred aboriginal pups. Additionally, after the collapse of the Soviet Union, cattle stealing greatly increased in Tyva. Cattle thieves often poisoned or shot guard dogs, which also contributed the near extinction of this aboriginal breed. Thus, today, the Kadarchy Yt remains rare.

Today, a few Kadarchy Yt are left in the western part of Tyva, in the Möngün-Taiga district. Because of mixing with other breeds, most of them are in a transitional phase of the breed. The interest in Kadarchy Yt had steadily declined, and it was not until the last decade of the 20th century that efforts to save the breed were finally put into motion. In 1997, researchers from the Laboratory of Comparative Genetics of Animals of the Russian Academia of Science and scholars from Tyvan State University conducted a research project on indigenous breeds of animals. They focused on the big dogs guarding livestock, namely, the Kadarchy Yt. At that time, the greatly reduced numbers of dogs placed the breed on the edge of extinction.

I can personally testify to the disappearance of the Kadarchy Yt. I remember well seeing these dogs in rural areas in the western part of the republic during family visits to relatives. In the summer of 1996, I saw the Kadarchy Yt for the last time at my friend's place in Kyzyl. The dog's name was *Köstÿk*. I still remember my friend's comment about *Köstÿk*, that he was somewhat crazy and aggressive, and he always wanted to escape. Later, *Köstÿk* escaped from his home-jail. Since reading about this breed, I have realized how wrong it was for such strong and independent dog to be on a chain in the yard for the rest of his life. When I am now in Tyva, I do not see them at all. In the fall 2014, I met a young Tozhun man named Artysh from a herding camp of cattle breeders, who was on a hunting trip for sable. His male dog was clearly a mixture of the Kadarchy Yt and the Laika (features of the Kadarchy Yt were prominent). Artysh was proud that his dog had Kadarchy Yt blood. His family got this dog when he was a puppy from the neighboring herding camp. The dog was young, and the young man hoped that it would turn into a great hunter.

One of the problems created by the decrease in Kadarchy Yt population is the lack of adequate guards against livestock predation. Wolves have always been a danger to herders because they kill as many animals as they can take. Domestic livestock are easy prey for smart, organized, and fast predators. One of the promises of the Communist party to the *lumpenprotaliriat* (to whom peasants and herders belonged as well) was to kill every last wolf. The Soviets tried hard to make good on that promise, establishing a national program. Professional state hunters who eradicated wolves received money for every wolf killed, typically either by shooting or poisoning. In the middle of the 1970s, the wolf population increased in the European part of Russia (Priklonskiy 1979, Priklonskiy and Osmolovskaya 1975) as well as in Siberia. According to Smirnov et al. (1990), at the end of the 1970s, the number of wolves increased in the Republic of Tyva, and Tyvan authorities continued to enforce the widespread killing of wolves. When socialism fell, this

program was no longer sponsored, and wolf hunting became less organized. As a result, the wolves multiplied. Anatoliy Suvorov (2004) states that the effects of human activities have changed the habitat and number of wild ungulates in ways that have caused wolf population to increase. Thus, in 2004, their number was estimated to be 1,300. According to the Ministry of Agriculture of the Tyva Republic, that number had increased to 2,397 wolves in Tyva as of 2011 (Murygina 2012). According to a press release from the Agricultural Department of the Republic of Tyva, in 2011 wolves were responsible for killing 4,500 head of livestock, signifying a monetary loss of 22,734,500 rubles. In the last few years, wolves have become a real threat to the agricultural sector of the republic, in which the majority of fresh meat comes from herders. The Tyvan government was forced to establish a wolf hunting program: 101 hunting brigades with 462 hunters were organized in different districts in the republic. They received salaries, transportation, and firearms (Murygina 2012). In addition, the government actively encouraged the public to kill wolves. Anyone presenting the hide of a dead wolf receives a monetary award (the award is even higher for a female wolf). However, Suvorov and Petrenko (2007) point out that it is important to understand that wolves should be killed with careful selectiveness. Because social organization is vital in the pack, the most effective way to regulate the wolf population is to catch experienced wolves (producers and feeders of the pack) and kill pups. While culling pups means that a pack will not increase, killing of experienced wolves means destroying social organization of the pack which will cause a decrease in their number. In addition, wolf killing should be done in several neighboring regions to be effective. Massive killing of wolves in a particular area may reduce their number, but wolves from neighboring areas will soon migrate into that empty area and take their place. Moreover, without any competition for food, alpha female wolves will have a larger litter size. Also, if a wolf population drastically decreases, they can reproduce through hybridization with dogs. Thus, according to Suvorov (2002), because of the consistent killing of wolves in the 1980s, sixty-two cases of wolf-dogs were discovered in the Krasnoyarsk region and the Khakasia Republic. According to Suvorov and Petrenko (2007), if the wolf population is not high, only pups should be killed as killing an alpha couple does nothing to control a pack number. Killing only pups will control their number and keep the social structure of these social complex canids stable, as they continue to maintain their hunting territory.

It is important to stress that wolf hunting is not an easy task, because these canines are intelligent and know how to avoid humans. I was surprised to find out that none of herder-hunters

I met had ever seen wolves, although they often see their tracks. Once Anoka commented about wolves: "They are always around us. They watch us, but we do not see them." It is challenging to search for them through deep snow in winter. It is important to understand wolf ecology, as wolves living close to human habitats have learned to imitate dog behavior. Victoria Peemot (2016), a PhD student of the University of Helsinki, who does research on human-animal relations among horse and cattle breeders in the southern part of Tyva, states that a wolf can enter the camp in darkness, wagging its tail as dogs do.[88] Human beings cannot see well in the darkness, so they perceive the animal silhouette as one of their pets. They do not realize that a predator is already in the camp; often dogs, fearing wolves, fail to bark as these predators approach or enter the camp. Peemot's uncle lost several sheep because he mistook a wolf, who imitated a dog's behavior, for one of his dogs, and none of his dogs alerted him to the presence of an enemy. The herder recognized that this accident would not have happened with a Kadarchy Yt. Lescureux and Linnell (2013) report that recent changes in hunting and herding practices in post-Soviet Macedonia and Kyrgyzstan caused changes of perception of the wolf and led to modifications to the nature of wolf-human interactions. Many herders would wish to have their reliable Kadarchy Yt to guard livestock well and fiercely attack wolves. The older generation of herders recalls the service of the Kadarchy Yt as they complain that non-aboriginal dogs are cowardly and fear the wolves. Despite wolf killing being encouraged by the local authorities, the wolf population remains significant in Tyva, posing a continuing menace to herders and their livestock. The loss of their animals to predators is devastating to herders. The dramatically reduced numbers of the Kadarchy Yt have thus created a major cultural shift and loss.

Consequently, an interest in indigenous breeds of dog has been growing. In 2001, a revival breeding program was established, and the Möngün-Taiga Kennel was organized in the vicinity of Moscow (Zakharov 2004, Zakharov-Gezehus and Kashtanova 2009). However, because of the limited number of dogs, the gene pool of the breeding stock is still very small and not sufficient to sustain Kadarchy Yt while avoiding inbreeding. Another problem is that Moscow is far away, and the Kadarchy Yt there are bred according to the tastes of Muscovites, who have nothing in common with herders. In 2013, the Tyvan government, concerned about the return of the aboriginal Kadarchy Yt to the republic, organized a revival program in the Möngün-Taiga district, where Kadarchy Yt still exist (Tuvaonline 2013). A small kennel, Mögen-Büren, began operation with

[88] Viktoria is from a reindeer herding family in the Tes-Khem district.

three adult dogs and three puppies (Tuvaonline 2013). While the Tyvan government is looking for a solution to the problem, Mongolia already has a revival project for returning the Bankhar to nomadic life. The main goal is to protect livestock using the Bankhar without forcing the herders to shoot or poison predators, particularly the endangered snow leopard. As a part of this project, many Bankhar were placed in the nomadic camps (Mongolian Bankhar Dog Project 2014). The Tyva are aware of the Mongolian effort, and they have turned their hopes to bringing the Bankhar from Mongolia. However, there are complex rules and regulations regarding importing and exporting animals for both Mongolia and Russia. Russia has a great number of restrictions, because Mongolia frequently exports livestock throughout Russia. Meat processing plants in Siberian cities are interested in buying Mongolian meat because it is completely organic, very fatty, and inexpensive. Despite a Russian ban on importing animals from Mongolia in order to prevent the spreading of diseases in Russia, some Tyvan people have managed to cross the Mongolian border with illegal puppies. My friend told me a story about her aunt living in the Tes-Khem district (southern part of Tyva), who brought a puppy from Mongolia. The woman learned of a common method from acquaintances, and she decided to try it. She went shopping in Mongolia, bought two puppies (a female and a male), gave them a shot with a tranquilizer dart, and crossed the border while covering them in her bag. Later, the dogs turned out to be good protectors for livestock and the *aal,* and the family was very happy with them. The male dog was named "Killer" because of his aggressiveness towards strangers and predators.

According to Darzha (2013), the second indigenous breed, the Taigan (Figure 20), was mostly used for hunting wolf, fox, and sometimes ungulates by the Tyva. Caroline Humphrey (1976) notes that the Taigan[89] was used to hunt marmots, foxes, and boars in Mongolia. They are "taught how to kill an animal without spoiling the pelt, by catching it at the back of the neck, shaking it, and breaking the neck" (Humphrey 1976:14). The breed was a true treasure to nomads because of its crucial role in hunting, particularly in a complex type of hunting involving several species—a horse, a bird of prey (golden eagle, goshawk, or peregrine falcon), and a dog. It was a complex, high-class type of hunting in which multiple species were trained to work together as a team. The Taigan, a sight-hound, has deeply rooted hunting instincts and is valued for its high speed. It is little bit larger than medium size with long droopy ears and a short-haired, yellow (or back) coat.

[89] Or "Taiga" in Mongolia.

Figure 20. The Taigan. Illustration by Alina Arakchaa.

The origin of the Taigan is not clear, but there are several versions of its story. According to Leonid Sabaneev (1987), with the movement of peoples and spread of Islam around the world, this dog came from Arabia to Central Asia, Altay, Tibet, and the Himalayan Mountains. It is related to the Tazy in Kazakhstan and the Taigan in Kyrgyzstan. Despite not being from the region, Inner Asia has perfect open field conditions for hunting with this dog, although initially it did not exist there. Early travelers to Tyva gave short descriptions of the Taigan (Kon 1936, Grumm-Grzhimaylo 1926, Turchaninov 2009 [1915]). The Taigan was closely connected to falconry. This type of hunting was not for everyone, because it required significant training of multiple species as a hunter had to manage a horse, canines (Kadarchy Yt and Taigan), as well as a raptor. Typically, only wealthy Tyvan nomads, known as *noyons*,[90] practiced this type of hunting, in as much as they could afford to keep many canines (Kadarchy Yt and Taigan),[91] raptors, as well as their trainers, and hunting assistants as well (Darzha 2013).

Soviet pet-keeping practices were supervised by the "As icons of bourgeois domesticity, pets presented an ideal foil for revolutionary critiques of the older order, or cautionary tales about the corrupting potential of the past" (Nelson 2006:127). Thus, during the Stalin purges, the Taigan were associated with *noyons,* who were proclaimed enemies of the people, and their dogs were

[90] Noyon – a wealthy nomad.
[91] Both Taigan and Kadarchy Yt were used for hunting. A Taigan was responsible for chasing the animal, and a Kadarchy Yt held the animal until the hunters came.

considered useless in building socialism. The popularity of the Taigan—a dog of feudalists" (Darzha 2013:502) – declined. Communist fighters made sure to eliminate this dog from the Tyvan land and killed off all they found. The Taigan went completely extinct in Tyva by the 1950s (Darzha 2013, Zakharov-Gezhekhus and Kashtanova 2009), disappearing before it could be recognized as a separate breed. The loss of the Taigan is a great loss for Tyvan nomadic culture, as the knowledge of falconry and hunting with canine and raptors cooperatively was completely lost. Darzha (2013) remains the sole figure to have interviewed elders who still remembered the dog and bird training in the 1990s. Today, in Inner Asia, only Mongolia is actively trying to preserve this breed, but a small number of dogs is not enough to continue breeding. To avoid inbreeding problems, other related subbreeds from Kyrgyzstan or Kazakhstan must be brought in to maintain the genetic diversity of offspring.

There is no historical record of the Tozhu keeping the Taigan, as this hunting dog is not especially suited for the taiga. Vladimir Beregovoy (2002) states that a sight-hound is more effective in the open fields. Yuriy Nikitin, a professional cynologist and experienced ranger (currently retired) in the Tozhu district, confirmed that using this sight-hound to hunt in the taiga did not especially make sense. The Taigan runs at high speed and could easily crash into a tree while chasing a wild animal. My informants in Adyr-Kezhig and Toraa-Khem were not familiar with this dog when I showed them a picture. The oldest informants I interviewed were born in the early or mid-1940s, and none of them recognized it. I assume that it is quite possible that in the past, some of the dogs could have reached the Tozhu region where they mixed with the Tyvan Laika, but I have no confirmation of this happening.

Hunting breeds are the most popular in Russia, including Russian scent-hounds, sight-hounds, bark-pointers, and *Laikas* (Figure 21). According to Sabaneev (1987), before the Mongol-Tatar period, Russian nobility used Laikas as hunting dogs, since the breed combines all the positive traits of scent-hounds, sight-hounds, bark-pointers. Following the Mongol-Tatar invasions of the 13th century, a great number of scent-hounds and sight-hounds were brought from Central Asia. These breeds were valued for their speed, endurance, and aggressiveness toward wild game in finding their quarry. They mixed with the Laikas, producing the Russian Scent Hound. At that time, Mongol-Tatar tribes had highly developed dog husbandry and well-organized collective hunting using hundreds of dogs. Russian princes were impressed by these dogs and adopted a favorite type of hunting that involved numerous participants, scent-hounds, and sight-hounds.

Scent-hounds typically chased wild game animals in the forest, pushing them into the open fields where hunters on horses with servants and sight-hounds awaited them. Thus, Laikas and Tatar scent-hounds became a foundation for a new Russian Hound, which later completely replaced the Laikas (Sabaneev 1987).

Figure 21. The Laika. December 2014. Photo by Tayana Arakchaa.

Until the revolution, scent-hounds, sight-hounds, and bark-pointers remained a privileged class of dogs used in hunting and as one of the favorite pastimes of the aristocracy and military nobles. Laikas were completely ignored by aristocrats, who considered them mongrel dogs, even though these indigenous breeds had hunted wild game, guarded livestock, and adapted well to a harsh climate for hundreds of years, and were particularly well-suited to the taiga environment. Aristocrats became the first breed specialists, possessing sufficient knowledge accumulated over the centuries about various breeds to build a foundation for future dog husbandry (Gusev 1989). Russians were the ultimate authorities on the evolution of the Laika, but these authorities had a limited understanding of indigenous breeds. To be fair, cynology was a new subject at that time. According to Gusev (1989), the first efforts to classify and define Laika types within the context of zoology were made at the end of the 19th century. The first breakthrough work on Laikas was

the "Album of the northern breeds of dogs" (Rus. *Albom severnykh sobak Laek*) by Andrey Shirinskiy-Shikhmatov, published in 1895. It was followed by another study specifically on Laikas, "The Laika and hunting with it" (Rus. *Laika i okhota s ney*) by Mariya Dmitrieva-Sulima in 1911. Indigenous peoples did not have a special term for their dogs; these breeds were just regular dogs used for their owners' needs. Shirinskiy-Shikhmatov and Dmitrieva-Sulima introduced the term "Laika" for these breeds, which has since then become the official name (Voylochnikov and Voylochnikova 1982). It is important to clarify the name "Laika." This term means "barker." It is a noun derived from the verb *layat* meaning "to bark." Indeed, a Laika is a bark-and-point dog. When the Laika finds and points out the location of a quarry, it barks loudly and a hunter follows its voice (Beregovoy 2002). According to the naming tradition in dog husbandry, initially each Laika breed received the name of the people who bred it—for instance, the Evenk Laika or the Nenets Laika (Vakhrushev and Volkov 1945). However, later, some of these names were changed as the dog standards requirements developed.

The October Revolution in 1917 brought significant political and social changes to all spheres of life, including cynology. Lenin's decree on hunting became a stimulus for combining new techniques with scientific knowledge in the selective breeding of hunting dogs (Gusev 1989). Canine classification came to reflect political leaders and national views. The main goal of Soviet cynology was to improve desired physical traits and develop one type of dog that was necessary and appropriate for each breed. After this political turn, Laikas were granted recognition, and as new breeds they were established in the Russian dog husbandry arena (Rozhdestvenskiy and Shapatin 1957). According to Anatoliy Voylochnikov and Svetlana Voylochnikova (1982), Laikas made their debut at a Moscow show in 1928. In order to save several breeds from extinction, Russians imported them from different remote regions and bred them into purebred Laikas (Beregovoy 2002, Voylochnikov and Voylochnikova 1982).

Beregovoy (2002) states that Laika breeds historically were a mixture of different indigenous breeds. Those eclectic influences, combined with challenging environments (including tundra, forest tundra, taiga, and mountainous taiga) and performance of diverse tasks, resulted in several distinct breeds. Thus, dogs with the keenest smell were used as trackers, while others were trained to herd various domestic animals or pull a sledge but, in general, all Laika have similar hunting behaviors. Ivan Vakhrushev and Michael Volkov (1945) point out that although all these

breeds share commonalities in their appearance and traits, the most important distinct physical features of Laika breeds are the following:

- Dark brown eyes with a more or less oblique shape of eyes
- Medium-sized erect ears of a triangular shape
- A pointed muzzle and an upper jaw slightly longer than a lower jaw
- Very dense coat and straight fur
- A short and curled tail pointed to the back or to the side

Voylochnikov and Voylochnikova (1982) emphasize that the Laika is hardy, intelligent, and well-adapted to all types of game and terrain. It is easily trained to hunt. One of the outstanding qualities of the Laika is that it is a multi-purpose dog, thus distinguishing the breed from other breeds of dogs in Eurasia. It is highly valued for this quality and remains the favorite dog of the taiga zone. Other hunting dogs are mainly specialized toward a particular size of wild animals, such as small-game mammals, big-game mammals, or game birds. The Laika hunts with passion and is very aggressive to both game mammals and birds. Despite its aggressiveness at hunting, it is friendly to humans and docile in general. The Laika is very affectionate to its master, a good hunting companion and a wonderful family pet. It usually gets along with other dogs of the household (Beregovoy 2002).

Although the Laika have some commonalities in appearance and behavior, each breed has its own traits, nuances, and distinct personalities. The main difference among the breeds is that these dogs differ in size and body length. For instance, the Karelo-Finnish Laika is the smallest Laika breed, and its body has an almost square shape. It specializes in hunting small game animals. The East-Siberian Laika is the largest type of Laika, and it has a longer body than the Karelo-Finnish Laika. It hunts both small and big game, and it is strong enough to pull sleds (Beregovoy 2002, Gusev 1980).

One of the main problems with the categorization of Laikas is that they are usually classified based on Western ideas of breed standards, which ignore how the relationships between humans and dogs are constructed locally. Thus, according to their use in the local economy, Laika experts divide these dogs into three groups: sled dogs, hunting dogs, and guardian (herding) dogs. The most numerous of these group is hunting dogs. According to Vakhrushev and Volkov's classification (1945), the Yakutian Laika falls into two categories: sled and hunting dog, although the authors note that this division is conditional because Laikas are multi-purpose. This widespread

classification is a simplified picture of indigenous dog traditions. However, this economic use is not central to local concepts of dog breeding, for a dog's working skills, experience, personality, hierarchy in the pack, gender, and age are crucial to performing such tasks as pulling a sled, herding, or hunting. The reason why Laika classifications are limited is because these dogs were imported to state kennels, in which they were held captive. As a result, ideas about these breeds and the hunt itself were based on Euro-Russian concepts, not indigenous ones.

Although the Laika breeds gained official recognition, their fate was not easy. They experienced massive destruction of the dog population, and then reconstructive dog breeding, in the name of accomplishing certain goals of the government. The massive destruction of the Laika population, caused by the Second World War remains a little-known story. Vladimir Gusev's article (1989) is the only source that provides us with this remarkable history. Gusev (1989) states that the war dramatically disrupted the development of dog breeding in Russia. State pedigree kennels could not feed dogs and several thousand Laikas were evacuated to Siberia. People were starving and were forced by necessity to kill pedigree dogs on a massive scale, and many surviving dogs became strays. Moreover, many dogs were used for military purposes performing a variety of tasks: detecting mines and enemies, carrying explosives to tanks and railroads, delivering food and first aid, and pulling sleds. The number of pedigree dogs, including the Laika, that died during the Second World War is unknown.

During the Second World War, the Soviet economy suffered a severe financial crisis and the country needed money. The government realized that the only economic opportunity for the country was to restore the national fur industry, and the Laika were key to this profitable business (Beregovoy 2002). The Soviet government made a strong push to continue to supply international markets with its "soft gold," high-quality furs. The first step in rebuilding the fur industry was to restore the Laika pedigree, improving their traits and working skills. According to Voylochnikov and Voylochnikova (1982), in 1943-1944, the USSR government decided to organize kennels for breeding hunting dogs.

After the war, sixty-five state kennels were established around the country. Seventeen kennels specialized only in Laika. They were subordinate to different state agencies on the federal level. Later, some kennels became unprofitable, and their number was reduced considerably. The Laika's impact on the national economy existed but had never been documented. Voylochnikov and Voylochnikova (1982) stress that in the early 1980s, from 70 to 100 percent of squirrel pelts

and from 50 to 98 percent of sable pelts were harvested with the help of the Laika. It is clear that dogs played an important role in the hunting and trapping industry, but this part of history remains unknown to the public.

It is important to stress that the aforementioned four Laika breeds—the Karelo-Finnish Laika, the Russo-Siberian Laika, the West Siberian Laika, and the East Siberian Laika—are the results of selective breeding. They are considered purebreeds and thus do not represent the indigenous breeds of a particular geographic region. They were sampled and bred from various parts of Russia (Beregovoy 2002, Voylochnikov and Voylochnikova 1982). Today, the main goal of Laika breeding is to preserve their desired appearance and valuable wild qualities. Before a dog show, the Laika of breeding stock are meticulously evaluated for their hunting ability during a field test. After passing the field test, they are admitted to the dog show, where they are selected for certain traits measuring their potential as a hunter and survivor under harsh conditions (Beregovoy 2002, Voylochnikov and Voylochnikova 1982). Hunters value the dogs for certain primitive instincts; a few decades of mismanagement cannot eradicate instincts that have been preserved by centuries of selective breeding (Verhoef-Verhallen 2009). Therefore, careful and correct breeding is important. Esther Verhoef-Verhallen points out (2009:9) that "today, particularly in the West, most of the dogs no longer perform the tasks for which they were originally bred." These dogs have fit perfectly into a new role as family pets. However, the Laika remains among the few breeds which continue to be used for a variety of purposes, notably, working hard for humans in the taiga.

Russian cynology as a distinct discipline is only about one hundred years old, although, as mentioned before, familiarity with indigenous Laika breeds goes back much further. Cynology, particularly Laika husbandry (Rus. *laikovodstvo*), has its roots in the exploration and colonial expansions of Siberia and Asia since the 15th and the 16th centuries. Explorers, traders, missionaries, and political exiles bent on their journeys of discovery and conquest left valuable detailed observations about the ways of life of the indigenous people they encountered. Some of these explorers were highly educated people sent by the Russian government with a special mission to explore the mysterious regions of Siberia and Asia from the 18th through the 20th centuries (Adrianov 1888, 1917, Afrikanov 1890, Bennigsen 1913, Ermolaev 1919, Katanov 2011 [1889], Vasil'ev 1910). These explorers were usually astute observers and recorders. We can find

some brief, but valuable accounts of indigenous dog breeds in their diaries, journals, memoirs, and reports (Carruthers and Miller 1914, Jochelson 1898, Maak 1887-1886, Turchaninov 2009 [1915]).

Today, studies continue on a variety of topics in different communities where people hunt with dogs, and there are some clear threads running through the academic literature on hunting dogs. Generally, such studies clearly belong to the disciplines of cynology, zoology, biology, wildlife management, and archeology. The importance of using specific hunting dogs in a hunt has been widely recognized since Valer'iyan Belousov's book on the Laika (1927), followed by other books on the Laika (Platonov 1968, Vakhrushev 1953, Vakhrushev and Volkov 1945, Voylochnikov and Voylochnikova 1982), and books on cynology, all written by biologists, cynologists, and amateur hunters. Most literature on the Laika, including articles and books published throughout the last eighty years, is devoted to disseminating cynological knowledge about the Laika and providing basic information about raising and training the Laika for amateur hunters. Belousov's book (1927) is the first of its kind and still one of the rare works oriented toward professional hunters and trappers. Belousov had lived in Siberia for twenty years hunting with the Laika, and he realized the important role of the Laika in hunting in the taiga environment.

Domestication and the impact of domestication on human and animal behavior have been studied through the lenses of biology, cultural anthropology, and biological anthropology (Cassidy and Mullin 2007, Taçon and Pardoe 2002, Schleidt and Shalter 2003). There are few recent anthropological studies that address specifically hunting dogs across the world. Anthropological studies by Jeremy Koster (2008, 2009) and Jeremy Koster and Kenneth Tankersley (2012) provided information about dog efficiency and hunting return rate in lowland Nicaragua. As for literature relating specifically to Siberia, there are anthropological studies about the cultural phenomenon of dog eating among the Evenki of Buryatia by Vladimir Davydov and Veronika Simonova (2008) and a study on human-dog relationships among the Oka-Soiot in Buryatia by Alexander Oehler (2016). In this research, I turn to human-dog relations to show how The Tozhu co-exist with their dogs and how the flexible balance between captivity and freedom recognizes the autonomy of dogs.

5.2 The Role of the Dog in the Tyvan Society

Understanding human-canine relationships requires a fundamental knowledge of the underlying cosmologies. In Siberian animistic systems, people have complex cosmological

relationships centered on sky and earth, water and land, souls and living beings. Southern Siberian belief systems concerning the realm of spirits and the nature of the universe present many deities as powerful spiritual beings, with a corresponding series of skies. Spirits can live in three skies, or worlds, while humans occupy only the middle sky. Spirits play different roles, have varied personalities, and exert their influence on human lives. Some of the spirits are benevolent, nurturing, and generous, while others are unpredictable, aggressive, and dangerous (Kenin-Lopsan 2002). In these societies, all humans, animals, birds, insects, mountains, lakes, rivers, trees, and other natural objects have souls or spirits (Ingold 1986, Kenin-Lopsan 2002, Willerslev 2007). Relationships between humans, deities and spirits reflect the nature of the society. Tyvan cosmology has a variety of complex categories denoting "living things."

L'vova et al. (1988) stress that Turkic ways of knowing and definitions of what constitutes "living beings" are distinct from the commonly recognized Russian (Western) scholarly interpretations. Siberian Turkic concepts of how nature functions are quite complex and not easy to interpret. L'vova et al. (1988) point out that these broader perspectives on "living" are usually restricted to one concept of "soul." Searching for the meanings of these perspectives with an incorrect concept of "soul" yields no answers and thus, does not reveal the true message of the Turkic cosmologies. For example, in Tyvan cosmology, everything is animated, and all life entities have the same characteristics, such as *süne, tyn,* and *ku't*. A human has *süne* (soul, spirit, breath), while an animal has *t'yn* (soul, breath). *Ku't* in Ancient Turkic means "1) soul, life strength, spirit; 2) happiness, goodness, grace, well-being, luck, success; 3) dignity, magnificence" (L'vova et al. 1988:72). In Tyvan *ku't* means soul, spirit, and life strength. In its initial form, *ku't* is connected to human physiology and symbolizes fertility and sexual potential. For instance, *köt* means a vagina. "Thus, the morpheme *ku't* is connected to a human reproductive system. The concept of *ku't* describes [the] biologicals basis of the origin of life on earth, [the] ability to produce, and *ku't* was applied to all life entities" (L'vova et al. 1988:73). All humans, animals, and plants are interrelated and receive *ku't* through the net of their exchanges with nature. Dogs always have had a special place in the human domain, and their working skills are still important in the herding camps. The dog's *ku't* also adds spiritual meaning to the world of humans.

Dogs are intimately engaged with humans, and it is not surprising that they receive special treatment and attention in the cosmology of nomads in Inner Asia. According to Weatherford

(2010), in the mid-fifteen century, the Mongols[92] going to war took an oath, swearing to the loyalty to one another in the following way:

> Traditionally as a part of the oath, the men killed three male animals—a stallion, a ram, and a dog—by cutting them in half. They separated the halves of three animals and, standing between them, they made their vow: "O God! O Sky! O Earth! Hear that we swear such an oath. Here are the males of these animals. If we do not keep our oath and break our word, let us be as these animals are. (Weatherford 2010:201)

For these nomads, execution through mutilation was the least noble and feared death, because "it allowed all the soul-bearing liquids, especially the blood, to flow out onto the earth" (Weatherford 2010:201). Such a way of dying destroys the body and the soul, and additionally pollutes the earth. For the nomads of the steppe, along with the stallion and the ram, the dog was a highly important animal, which symbolized the soul, personhood, family, and clan, as well as humankind's connection to nature.

It is also important to stress that the treatment of dogs in Tyva has contradictory aspects; they are beloved companions, yet they are sometimes eaten in rural areas. An important animistic view is that dogs are regarded as strong protectors from both predators and supernatural beings and possess the ability to act as healers (Samar 2009, Taksami 1968). The majority of Tyvan cosmological views are related to the Kadarchy Yt because it was the most popular dog in Tyva: "As an intimate other and a transitional being, the dog is believed to roam freely between material and spiritual realms" (Terbish 2015:150) and has the capacity to see bad spirits. Many of the Kadarchy Yt retain the "second eyes," or two yellow-tan patches above the eyes, considered by local residents a favorable trait for protection against malicious spirits (Figure 22) (Darzha 2013, Fijn 2011, Zakharov-Gezehus and Kashtanova 2009). The dogs with these patches are typically called *Köstÿk*, "with glasses," meaning spotted eyes. The Tyva believe that when a dog sleeps it is capable of seeing everything. According to Viktor Butanaev (2003), the Khongor, ancestors of the Khakas people, honored "four-eyed" dogs and did not tie them up at all. They also believed that these dogs could see beings that humans were incapable of perceiving. Additionally, the Kadarchy Yt could see the new moon during its first days. Baasanjav Terbish (2015) points out that "four-eyed" dogs see spirits, ghosts, and imminent natural calamities. A related belief can be found in

[92] According to Weatherford (2010), different clans, including Uighurs, Oirat, and Urianghai (all three are ancestors of the Tyva), mixed together under a variety of other ethnic names, including Mongolian clan names. So, probably all these clans practiced this traditional oath.

Greenland and Canada, where it is commonly believed that the dogs "often give a warning at the approach of things which men are unable to see" (Freuchen 1935:181, cited in Laugrand and Oosten 2002:96). In Tyva and the other northern regions described previously, inhabitants believe that only shamans and dogs can see the approach of the supernatural (Freuchen 1935 in Laugrand and Oosten 2002, Kenin-Lopsan 2002). In the recent past, Kadarchy Yt puppies that were born white usually did not have "four eyes." They were thought to be "useless" and were culled by the Mongolian and Tyvan herders. It was not considered morally wrong to kill such "useless" puppies (Terbish 2015).

Figure 22. Four-eyed puppy Noyon. May 2017. Courtesy of Amyr Kuular.

According to Kenin-Lopsan (2002), only shamans, people with a double vision, horses, and dogs are capable of seeing the *aza.* The *aza* are evil beings and are invisible *süne.* The *aza* is a type of devil. Erlik Khan sends the *aza* from the lower world, a Tyvan version of hell, to the middle world (the human world) specifically to kill a human. The *aza* sniffs around the yurt of its intended victim. If a dog suddenly begins barking at the yurt without a reason, it is a warning that the *aza* is hiding nearby. It is the right time to invite a shaman who possesses accurate spiritual

knowledge to perform a ritual (Rus. *kamlanie*). The shaman can then close the road of death and save a human life.

Terbish (2015) states that, according to Buddhist tradition, dogs are the closest to humans in the circle of reincarnation.[93] It is a common belief that "the dog occupies an intermediary stage between the cosmological realm of beasts and that of humans" (Terbish 2015:145). In order to reincarnate as a human, all living beings first start a new life in the body of the dog. Individuals who have led a sinful life are degraded by becoming dogs in the next circle of reincarnation. Then they can eventually begin a new life as humans once they have redeemed themselves. Terbish employs Victor Turner's idea of rites of passage to examine this cosmological perspective of reincarnation:

> The Mongolian dog also is what Turner calls a 'transitional being', for it is neither a complete beast nor a real human, but rather has the qualities of the two (recall that the dog is the only animal to be given a proper name on a par with humans, but is not allowed inside the human habitat). (Terbish 2015:150)

This life transformation can be seen in the progression beast→dog→human and occurs even without conducting a ritual. As a rite of passage, this transitional period involves neutrality, ambiguity, and pollution. The first stage is separated by a transitional period and involves identification as a 'real' beast and presages the second stage of becoming a human. In addition, transitional dog lives can proceed via two different paths (1) stray dogs will join wolves and attack livestock and humans, (2) a domestic dog is able to connect to the soul of a child. When a dog dies, Mongols prepare it for a new human life by cutting its tail and putting a chunk of butter into its mouth.

Despite the cosmological views, dogs are seen as unclean and polluted in some cultures (Simoons 1990, Terbish 2015, Vitebsky 2006, Willerslev 2007), because dogs, as community scavengers, eat human excrement. It is uncommon for the Tyva to kiss dogs, and they usually keep them outside of the yurt (Tyv. *ög*). According to Darzha (2013), a dog with a white tip on the tail is called *Kuduruunda Aazalyg Yt,* meaning "a dog with an *aza* sitting on its tail." The Tyva believe that the *aza* will follow this dog, and the dog brings the *aza* into the camp. That is why the owner must remove the end of the puppy's tail by tying it very tightly with hair thread. Later, the tail's

[93] Tyva, Mongolia, and Buraytia practice Lamaism, or the Tibetan branch of Buddhism (today it is not appropriate to use the term "Lamaism" in the Buddhist world). These regions have very similar religious traditions and ideas, influenced by both shamanism and Buddhism.

tip falls off due to lack of circulation. Some dogs are viewed as friends and protectors which is why some Tyvan shamans include a dog in their prayers. In addition, the dog serves as spirit-helper for some shamans. One elderly Tyvan man advised me to abstain from visiting shamans. He said that every person should visit a shaman only in extreme necessity. The man explained to me that each shaman usually has several spirit-helpers who play a dog's role as their master's guard and protector. All spirit-helpers are devoted to their master and help to negotiate with the spirits. They act like watchdogs when necessary to protect a master. Spirit-helpers always watch who is who and what a visitor is saying or doing. If something goes wrong—for instance, if they do not like what a visitor is saying—they will attack the visitor fiercely.

It is important to stress that Tyvan cosmologies are full of levels of evil spirits who are created for different purposes. One of them is a *buk*, a monstrous being who exerts a negative influence on humans, making them fight, commit crimes, or even murder others. A *buk* can completely destroy person's life. The *buk* usually comes when balance is ruined in the human world, for instance, when someone violates social norms or values by spreading slander, stealing something, or committing a serious crime (Kenin-Lopsan 2002). These supernatural beings not only attack an individual, but also members of their family (Terbish 2015). Humans are not capable of seeing or hearing the *buk*. A *buk* can take a form of any animal, bird, or insect. Sometimes the *buk* takes the form of a blue dog or wolf. If a blue dog follows a traveler on the road, sometimes appearing and disappearing, it means that it is a *buk* in the form of a blue dog. It is a bad sign that misfortune will come to the traveler soon (Kenin-Lopsan 2002).

Terbish (2015) points out that dogs are always seen as inferior to humans despite their close bond. If a dog does something wrong, generally it is immediately punished; for example, licking or stealing food items, or entering the yurt. This type of misbehavior is punished verbally and physically. If a dog kills livestock or domestic birds, it is killed by the owner or the individual who lost his property. In addition, rural Russians make hats and mittens from the hides of killed dogs.

Terbish (2015) states that during the socialist era, after shamans and lamas (Buddhist monks) were persecuted and killed, traditional teachings and the existing social order were distrusted. The government campaign of mass dog killing also contributed to dogs losing their spiritual significance, particularly in urban places, where people kept dogs for necessity. People were not afraid to mistreat dogs. There was a similar situation in Tyva. Moreover, in the time of hardship after the collapse of the Soviet Union, dog meat became needed food for poor people in

the remote taiga villages of southern Siberia (Davydov and Simonova 2008). According to Davydov and Simonova (2008), dog eating among the Evenki is a post-Soviet phenomenon. While in some Asian cultures dog meat is considered a delicacy, today, in Russia, dog meat, including its highly-prized fat, is regarded as a cure for several diseases, which I examine in a later chapter.

5.3 The Laika in the Tozhu District

Although the Tozhu district is considered to be reindeer territory, dogs can be truly described as the *heartbeat of Tozhu land* (author's emphasis). In the past, the Laika inhabited the taiga zone, which included five districts: Biy-Khem, Ulug-Khem, Tozhu, Kaa-Khem, and Tore-Khol. However, today the land of Tozhu remains the only place in the republic where the Laika breeds are used as the ultimate hunting dogs. In the taiga, reindeer herder-hunters ride reindeer with accompanying Laika, reminiscent of an archaic hunting scene depicted in several thousand-year-old petroglyphs (see Vainshtein 1971). The complex role of the dog is integral to understanding Tozhu communities, especially because the dog is used both as hunting and navigation tool. Also, villagers eat dog meat for sustenance and to treat tuberculosis. Gradually, the dog's role in many societies has changed. Most are no longer used as hunting tools; rather they are considered pets to keep at home. Throughout history, the dog's role did not change in the Tozhu society and today dogs still occupy multiple roles. The dog is a key animal in hunting, plays an essential role guarding the household territory, assists with way-finding through snowstorms, and acts as a reliable friend. With bundles of energy and strong hunting instincts, the Tyvan Laika (Figure 23) is meant for long days in the taiga and has the willingness to cover long distances in order to retrieve the kill. The Laika is an ideal family dog and hunting companion because of its flexible combination of aggressiveness towards wild animals and friendly behavior to humans as well as its ability to thrive in extreme taiga conditions. To understand the role of hunting dogs among the Tozhu, it is necessary to examine the history of the Tyvan Laika. Due to scarce resources, it is impossible for us to know precisely how and when domestication of the dog occurred in this particular region. We can, however, reach conclusions as to what the Tyvan Laika is, how it behaves, how it is used by humans, and how humans and the Laika co-habit together.

Figure 23. East Siberian (Tyvan) Laika. December 2014. Photo by Tayana Arakchaa.

Before I arrived at the winter *aal* in November 2014, I was stuck for several days in a hunter's house in the taiga waiting for the kommersant to retrieve me. It was the start of winter and the beginning of the hunting season. There were several men in the house who had come to hunt sables. Practically all conversations in the house were about hunting, sables, and, the favorite topic: dogs, dogs, dogs. In Sayzana's camp, the conversations were similar: herder-hunters and village hunters discussed their dogs, their hunting behavior, and their hunting experience in general (Figure 24). I was amazed how different the winter was from the summer season, when herder-hunters frequently watched and checked on their reindeer. During the hunting season, they often petted their dogs and fed them especially well. I could readily see how important dogs were in Sayzana's *aal*. The couple had five dogs, including Sayzana's brother's dog. Andrey built a kennel for each dog before the hunting season started, and Sayzana checked each dog every morning. From time to time, she checked the moss inside each kennel, which was used as bedding for dogs. Sayzana cared enough to check that the dogs would have a comfortable place to rest after long hours spent searching for the kill. One day, Sayzana asked me to babysit her granddaughter because she needed to gather moss to make new bedding. In fact, the couple planned to have a

female puppy brought to the *aal* in the spring. They wanted this female because, in the future, they could choose potential hunters from their own litter and would not have to depend on other people to supply dogs for hunting. The couple asked the *kommersant* to bring a Laika whose parents were good hunting dogs. One day I talked to Sayzana about dogs, and she commented about Andrey, "Andrey loves his dogs. I know that he steals candies for his dogs from me." She kept a small candy bag for her granddaughter in her leather bag, which she would hide under the bed. Once, when Andrey was preparing for the hunt and he was going to take his dog Kharal with him, I saw that he petted Kharal and gave him a candy. So, in short, everything I saw and heard in the taiga about the key importance of dogs contradicted the academic literature on Tozhu reindeer herder-hunters, which focuses on the sole importance of the reindeer and its prominence in Tozhun religious views, songs, and folk legends.

Figure 24. Village hunters coming back to Adyr-Kezhig from the reindeer herding camp. November 2014. Photo by Tayana Arakchaa.

During hunting season, the life of the camp would completely change character. The men would begin to spend all of their days searching for a prey. Although they drove the reindeer herd

to the camp every morning, as soon as the reindeer were released, they would roam the taiga again. Herder-hunters paid more attention to their dogs at this time of year: they fed them well, petted them often, and checked on their wellbeing. The hunting season with dogs would last almost through April. A good dog that would help hunters obtain a high number of sable and musk deer was highly valued by its owners. Villagers believed that the best hunting dogs were raised in the taiga by the herder-hunters themselves. Although reindeer are privileged over dogs and horses, the dog remains the second most significant animal in Tozhu hunting culture. This is best observed during the late fall, winter, and early spring, when life is more oriented toward commercial hunting and subsistence in general. I aim to demonstrate in this section of my research the important role of the dog, its use, and effectiveness during the hunting season in winter; the following section gives an overview of the history of the Tyvan Laika.

Figure 25. "Hunter's loyal friend—dog." 1951. Photo by unknown photographer. Source: Shoygu (2010:194).

The Tyvan Laika is a sub-breed of the East Siberian Laika breed. According to Anatoliy Geyts (1968), in the late 1960s, there were two to three thousand East Siberian Laikas in Tyva.

About 90 percent of sable were harvested with the aid of these dogs. When I asked people to describe how the Tyvan Laika looked, my informants gave me several descriptions. I could identify two common descriptions that were similar to the descriptions given in the literature about the East Siberian Laika by Geyts (1968). The most popular was a large and strongly built dog with a thick black coat, sometimes with a yellow pattern as well. This type of dog is obviously mixed with the black Kadarchy Yt, although the Kadarchy Yt also could be light colored. The Laika skull was broad with a muzzle that was shorter than the skull (Figure 22, 24). Another type of Tyvan Laika had more common features with the West Siberian Laika. This type of the dog was lightly-built with a long muzzle (Figure 26). The coat was also thick and could have various colors. The main trait was that the Tyvan Laika was very aggressive and hunted both small and big game. All these descriptions fit Geyts's portrayal of the East Siberian Laika. Geyts (1968) states that in general, these dogs had a similar look to one another across the vast territory from Tyva to the Amur region, and all of them were well suited to the harsh, cold climate. According to Chernyshev (1959), one of the important features of the Laika living in the dark taiga zone making them stand out from other Laika subbreeds is that they have a highly sensitive sense of smell, allowing them to detect squirrels and sable hiding in the trees.

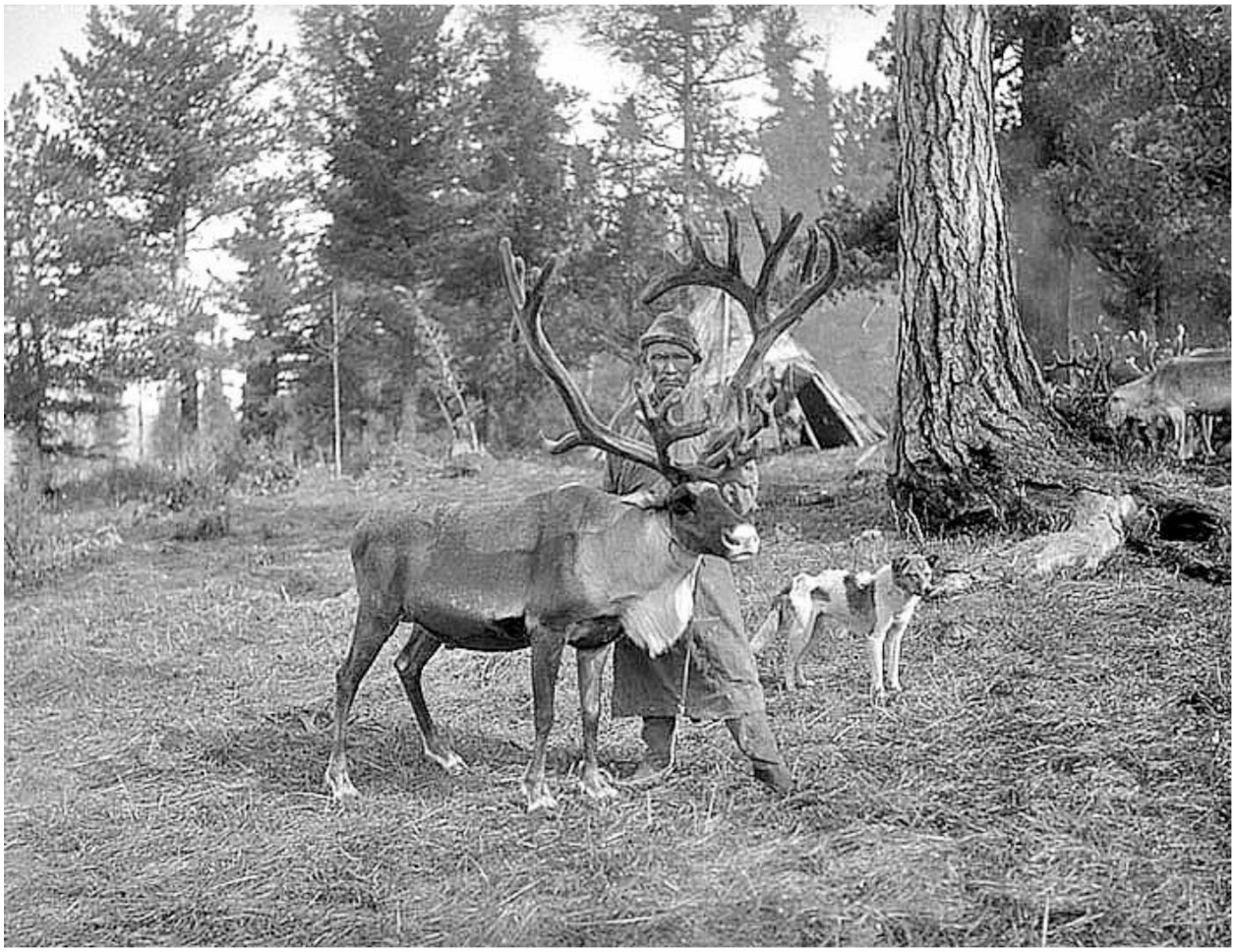

Figure 26. "Tozhu encampment. The Uryankhay region. The Tozhu district." 1910. Photo by unknown photographer. Courtesy of the Krasnoyarsk Regional Museum.

It is important to stress that because the Laika breeds were newly recognized breeds in the Soviet era, serious discussion about the exact nature of the Laika, and particularly their hunting behavior, did not begin until 1956. Since that time, there has been an increasing demand for knowledge about the nature of Laikas, which generated a heated debate in the Russian journal *Hunting and Hunting Economy* (Rus. *Okhota i okhotnich'ee khozyaystvo)* (first published in October of 1955). These discussions highlighted a concern about the Laika's future, particularly the projected breed standards, as envisioned by cynologists, breeders, rangers, and game managers. As a matter of fact, the Soviet government gave responsibility for Laika breeds to game managers, who usually lived in Siberian rural communities and themselves kept Laikas. Dog breeding courses were, and still are, required in the game managing program. To this day, Siberian game managers often assist with field tests and are considered to be Laika experts and consultants. It is not

surprising that many of them felt responsible for breeding issues and set appropriate priorities for Laika breeding in rural settings. Their long-term observations and studies are valuable and were key resources in preparing this dissertation.

I have already mentioned that the Soviet government, concerned with perpetuating and restructuring hunting and reindeer herding economies, introduced selective dog husbandry. The Soviet planners expected that a purebred "super" Laika with improved hunting abilities would make beneficial contributions to hunting successes. The state launched various breeding programs aimed at producing healthy and high-quality working dogs, and each state kennel focused its efforts in production of certain breeds. The Laika breeding program was identified as *laikovodstvo* (Rus. Laika husbandry). Some kennels specifically tailored breeds to meet state needs in producing the multi-purpose "super" Laika. Moreover, "[g]iven the practical importance of dogs to various kinds of economic activity, the Soviet state quickly became involved with their propagation, training, and dissemination" (Nelson 2006:128).

The Soviet state regarded the Tyva as one of the most backward nationalities of the USSR with primitive means and uncomplicated modes of production. In the state's opinion, there was much room for improvement in Tyvan hunting methods by integrating appropriate means of production, and *laikovodstvo* was considered one of the economic means requiring special attention. Laika husbandry in the Tozhu district can be classified into five stages: start-up, success, shut down, renewal, and failure. The start-up phase started in 1957, when the first Laika show was officially held in the district. Out of 167 dogs Laika expert A. Sosunov (1957) recognized only 68 as true Laikas. He argued that in order to preserve the Laika in the Tozhu district it was necessary to castrate mongrels and crossbreds with low-value qualities (1957, 1958). According to Voylochnikov and Voylochnikova (1982), there were 150 hunters in Toraa-Khem and Saldam villages. The Laika business started in 1972, when the first purebred puppies were brought to the district. In 1972, 1974, and 1976, sixty-four purebred puppies of the West Siberian Laika (Figure 27) were bought from the state kennel VNIIOZ and distributed to hunters. However, by 1976, only 19 remained. Most of those imported dogs died from infectious diseases. The rest of the dogs died in car accidents or were stolen. In 1976, a professional game biologist and cynologist began to work in the Tozhu Cooperative Animal Hunting Enterprise. The cynologist scheduled dog vaccinations, organized field trial tests and selective breeding, brought in purebred West Siberian Laika puppies, and educated hunters in raising and training purebreds. By 1980, there were fifty

purebred West Siberian Laika in the district. At that time, the Society of Hunters in the Tozhu district had 700 registered members, all of whom were interested in Laika breeds. It was a period of successes, and Toraa-Khem became the best and only example of a "pedigree nest" (Rus. *plemennoe gnezdo*) promoting the purebred West Siberian Laika on a national level, so that Laika authorities such as Voylochnikov and Voylochnikova (1982) included this example in their book. Under state sponsorship, the Tozhu Cooperative Animal Hunting Enterprise began to distribute puppies to other districts of the republic. Voylochnikov and Voylochnikova (1982) state that keeping a pedigree nest was less expensive than a kennel. However, elder Dooshka Lopsan-Bazyr, a retired reindeer herder-hunter, recalled the arrival of the West Siberian Laika with mixed emotions:

> The West Siberian Laikas were brought to the Tozhu district. They looked similar to our Laika but they were smaller than ours. In the beginning they felt the cold and they lost hair on their legs. It took them a while to get used to our climate. Today, there is no local dog breed. There is another breed. Our Tozhun Laika and the Irkutsk Laika[94] were not afraid of meeting a bear or a wolf. The Local Laika had floppy ears. The Russian Laika had pointy ears. However, the local Laika with floppy ears had good hearing. The Tozhun Laika disappeared in the 1980s because they intermixed. These *khaynaktar* [halfbreeds] are afraid to attack a bear. Nowadays, we have *khaynaktar* in the taiga. (Dooshka Lopsan-Bazyr, oral communication, August 16, 2013)

[94] The East Siberian Laika.

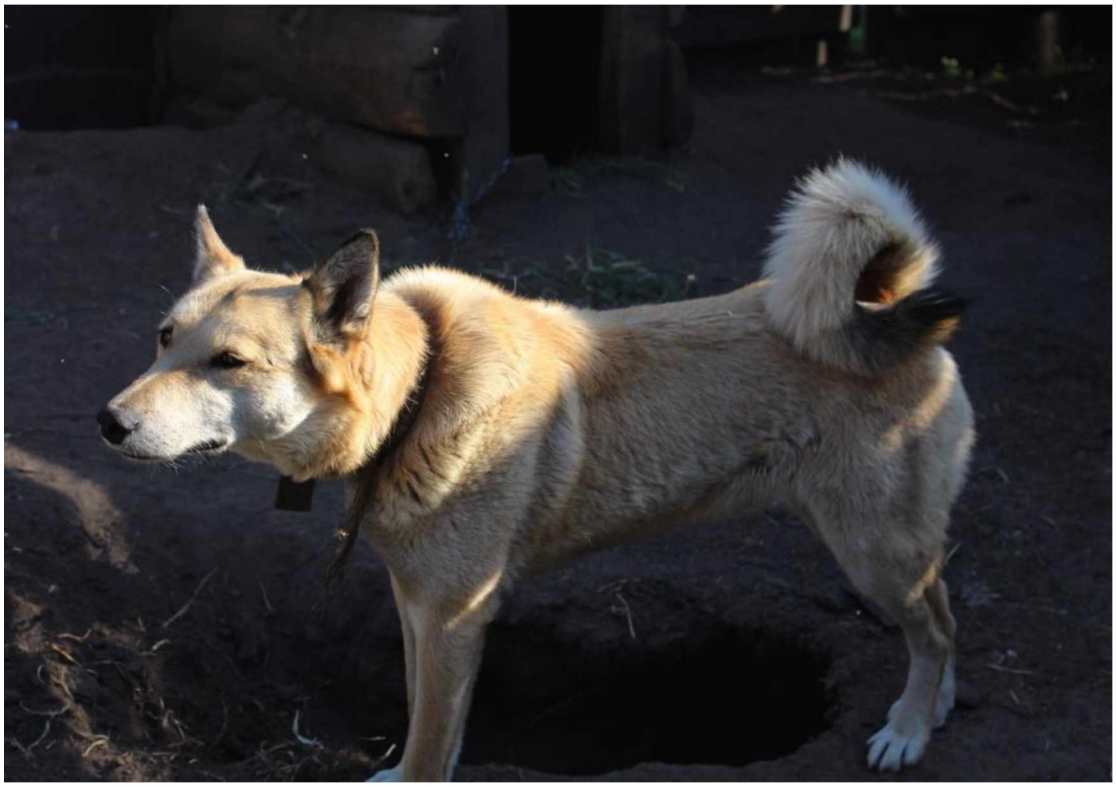

Figure 27. A purebred West Siberian Laika in Toraa-Khem. June 2015. Photo by Tayana Arakchaa.

After 1982, there is no recorded information available on the history of Tozhun *laikovodstvo.* However, the history of the Tozhun Laika was not hidden at all: it was merely ignored and not written down. Evidence concerning these hunting dogs can be found in the Tozhu district and its people. This chapter is a small effort to find that lost piece of history, to reassemble its pages, and to see what has happened to these dogs for the last thirty years. In the Tozhu district, a number of people had knowledge of the Laika and the events that happened in the past, much more than they would admit. However, everyone told me that I must talk to Yuriy Nikitin, who had detailed knowledge about Laika and was regarded as the expert. My host family described him as an honest and reasonable man. Moreover, he was the only one among those Russians with authority and power who respected the reindeer-herders' life and never treated them as poachers. Because of the assistance of this dedicated *laikovod,* I was able to reconstruct some of the Laika's history in the district.

It took me a week to arrange the meeting with Yuriy Nikitin in Toraa-Khem. At first, he refused to be recorded but he allowed me to take notes. Later during our conversation, when he saw that I was sincerely interested in the Laika, he opened up and was more relaxed. Nikitin had

firsthand experience in Laika breeding, and he loved what he did. In addition, he was the only licensed cynologist in the Tyva Republic who had the right to give a dog a pedigree certificate. Nikitin was a passionate *laikovod* and had worked as a ranger (Rus. *eger'*) and a game manager more than forty years in the district. After had been released from jail he retired, at the age of 62. Because of this dedicated *laikovod,* I was able to reconstruct some Laika history in the district.

According to Nikitin, the Tozhun pedigree nest flourished until the cynologist had a fight with the administration, causing him to quit his job in the mid-1980s. After this, there was no cynologist who could take care of the pedigree nest on a professional level in the remote province, and as a result, the nest collapsed. The *gospromkhoz* did not make any attempt to hire a professional cynologist to continue breeding and maintain the success they had achieved and seemed to not care much about maintaining the purebred Laika. On closer scrutiny, it becomes apparent that this cycle was inevitable. Although the nest had a solid reputation, dog breeding was an unprofitable business for the *gospromkhoz*. The *gospromkhoz* had to invest in expensive purebred Laikas in order to maintain a high hunting success rate. The problem was that the administration operated the Laika business at a net loss and could not cover all their expenses. Also, the *gospromkhoz* realized that excellent bloodline and superior quality did not guarantee that all resulting puppies would have useful talent. Clearly, it was quite reasonable for the *gospromkhoz* to use the Tyvan Laika that cost nothing. Thus, the great state plan of replacing the village Tyvan Laika-mongrels (Figure 28) with the purebred West Siberian Laika failed. According to Nikitin, the dog owners typically did not tether their dogs, and dogs ran in the streets freely. In 1977, the dog population was high, and the local administration became concerned. They decided to reduce the number of stray dogs by shooting street dogs. However, by the end of the 1980s the number of hunting dogs reached 1,200. The administration issued a law allowing only a limited number of dogs. A professional hunter (who was a part of a collective farm) could have up to three dogs and an amateur hunter could have two dogs.

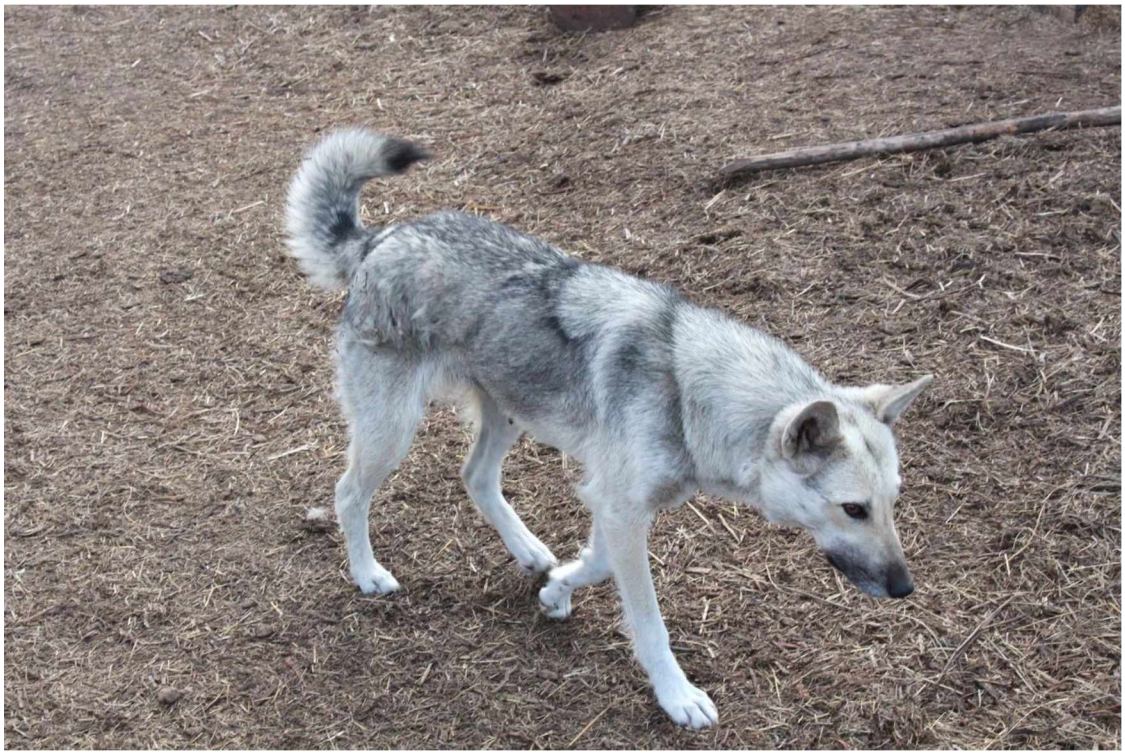

Figure 28. A non-purebred Laika in Adyr-Kezhig. June 2015. Photo by Tayana Arakchaa.

The renewal period started with Yuriy Nikitin, who committed his efforts to selective breeding of the West Siberian Laika in the post-Soviet period. In 1989, Nikitin asked for financial support from the Tozhu administration to maintain the Laika population in the district. He brought nine purebred Western Laika puppies from the Novosibirsk Kennel to Toraa-Khem. Retaining selective breeding required financial resources, and it was not a type of business that consistently generated revenue from selling products. Nikitin paid 390 rubles per puppy and the administration sold each puppy for 100 rubles to the district hunters. Considering that the salary of a ranger in the *gospromkhoz* was 132 rubles per month, a purebred Laika puppy was an exorbitant expense. Nonetheless, the purebreds were in high demand and the administration sold them all immediately. In fact, some individual hunters brought both pedigree and non-pedigree East Siberian Laika and Russo-European Laika to other Siberian towns and cities. However, the small number of purebreds were not enough to start a serious selective breeding effort in the district.

In 1997, Nikitin suggested starting a program called "Saving and Welfare of Hunting Laikas" to the district administration in order to restore the Laika population in the district. The program proposed promoting the purebred West Siberian Laika as the choice hunting dog and to restore selective breeding in the district. The administration approved the program and financially

supported obtaining several purebred puppies. The next purchases of puppies were made in 2000 and in 2004. Nikitin brought the purebred West Siberian Laika from Novosibirsk, Krasnoyarsk, and Abakan kennels, despite advice from authorities such as Geyts (1968), Beregovoy (2002), and Voylochnikov and Voylochnikova (1982) emphasizing that the East Siberian Laika was better suited for the taiga conditions, especially in southern Siberia, where the snow is usually deep in winter. The advantage of the East Siberian Laika is that it is taller and more capable of going through deep snow, but the majority of Laika experts neglected this breed. Nikitin also preferred the West Siberian Laika, and he has promoted the welfare of this breed in particular. He distributed dogs to individual hunters and some reindeer herder-hunters and continued his selective breeding program. As a result of the West Siberian Laika propagation, Tozhun dogs have that pedigree in their blood. Nikitin stressed that villagers, particularly the Slavic population, had recently begun to realize that owning purebred Laika is a rewarding and pleasurable experience. The breed's primitive hunting instincts were carried in their genes through the generations. Decades of selective breeding cannot eradicate all these traits, especially if the dogs were raised in the taiga. In general, the number of hunters interested in buying pedigreed dogs is growing in the district and in the republic overall. However, the West Siberian Laika population remains small, numbering several dozens, and without new blood boosting the gene pool, it is prone to issues associated with inbreeding. Although Nikitin has a passion for dog breeding, his plan of restoring a pedigree nest failed because selective breeding required financial support, and, despite the funds the district's administration spent on purebred puppies, they did not have sufficient means to develop and maintain appropriate *laikovodstvo.*

Today, the majority of Laika experts continue to prefer and promote the West Siberian Laika. These specialists have had control of these dogs' breeding for over ninety years. We can trace their ancestry to just a few generations back. This tendency has continued up to the present day—as humans continue to breed the Laika for particular behaviors and appearance. Although all hunting Laika are expected to have predatory behavior, instinctively giving chase after wild animal runs away, the pedigree Laika are bred by the breeding kennels and clubs for their appearance rather than for their temperament. Cynologists continue to completely neglect the East Siberian Laika, whom they consider to be dogs of uncertain parentage because of their diversity of appearance. Currently, the East Siberian Laika still has temporary breed standards, giving the impression of being a 'non-pure breed.' According to Voylochnikova (2012), the West Siberian

Laika remains the most popular breed, and the East Siberian Laika is of a small number in kennel clubs. This preference for the purebred West Siberian Laika was one of the main reasons that aboriginal breeds of the Tyvan Laika were nearly extinguished. Although Laika experts who live in the taiga rural communities admit that selective breeding and show competition "breed standards" led to a variety of outcomes that can affect a dog's behavior and appearance, to avoid inbreeding they had to bring those purebreds from the kennels. In fact, breed control in the kennels tremendously restricted the available gene pool of animals and caused inbreeding problems. For instance, in the case of Golden Retrievers, a breed with a population of one hundred thousand in the UK, the problem is that "over just the last six generations inbreeding has removed more than 90 percent of the variation that once characterized the breed" (Bradshaw 2011:256).

It is important to note that since the Soviet era, Laika experts have identified the Laika as contributors to *rabochiy dosug* (working leisure), which practically means physical activities pursued for leisure. The concept of the Laika as "*rabochiy dosug*" is somewhat problematic and suggests that the Laika are designated as nonhuman hunting tools used in sport hunting. According to the Laika expert Aleksey Zhurbin (2016), in the near future, the term "*rabochiy dosug*" will be reserved for the big-game Laika, assigning them to the realm of sport hunting, leisure, and active lifestyle. Given their practical importance for local economic activities, the rest of the Laikas will fall into the category of "*pushnye*" (fur) or used for hunting fur-bearing animals; in other words, official contributors to commercial hunting interests. This distinction between working and sporting dogs suggests that sporting dogs were operating as fundamentally removed from their working tasks in human society. Sporting Laika "*rabochiy dosug*" are kept inside and serve as a hunting companion and a guide to the natural environment for urban residents, while "*pushnye*" Laika are economic resources in local communities. However, this Soviet dog division was based on Western breeding standards that usually considered dogs to be creatures of urban settings, and do not give any room for indigenous practices and their particular human-animal relationships.

The Laika breed standard was developed by dog show judges according to their particular taste. In addition, the Laika from kennels lived in the cities and hunted occasionally in the European Russian forest, which was quite different from the taiga. In other words, their hunting tests did not replicate the real taiga conditions endured by Laika, and these dog show champions were not suited to the actual taiga life. Nikitin told me a story about how a sporting Laika once failed in the taiga. Five years ago, one of those dog show judges and top breeders from Moscow

visited Nikitin with the goal of hunting in the taiga. The judge usually hunted with his two beautiful, pure-bred West Siberian Laika champions in the forest of the Moscow district. From the beginning, Nikitin was skeptical that the hunt would succeed because the judge and his dogs had never been in the taiga before. The judge asked Nikitin to take him to a remote place to fully experience the taiga environment. Nikitin felt that it was a bad idea, and warned the judge that it was highly risky, that he might lose his dogs. The judge, as an experienced hunter, was confident in himself and his dogs' hunting abilities. He asked Nikitin to pick him up in a week. On the fourth day, the judge lost one of his dogs and he decided to stop hunting, fearing the loss of his second dog. Nikitin said the judge was upset by the situation, but he admitted that the taiga environment differed significantly from the Moscow forests.

The greatest critique of the Laika breeders is that the pursuit of breed standards has taken dogs away from actual taiga conditions, causing great inconvenience for hunters. One of the desirable characteristics of the West Siberian Laika is that it should have "height at shoulder [of] 55-60 cm (22-24 inches)" (Beregovoy 2002:46). This is one of the most inadequate breed standard requirements for dogs performing arduous tasks in deep snow. Thus, Golovkov (1962) was the first one to point out that the canine height is overemphasized, and it is not conductive to advancing dog utility. He stresses that the Laika height standards were introduced without deep and long-term research of selective breeding results and in complete ignorance of the taiga environment. For instance, in 1960, in the Rebrikhinskiy district in Altai found dogs who were 47 to 52 cm tall could not perform a search through the deep snow, and only one dogs whose height was 67 cm was able to hunt successfully (Golovkov 1962). Golovkov insists that the breed standards should be reconsidered in order for the Laika to be functional and to serve humans in its intended environment.

Nikitin, with his 45 years of experience working in the taiga with dogs and dealing with other hunters, told me he believed this standard requirement for a height should be changed to 64 cm. According to Beregovoy (2002), the height for the East Siberian Laika ranges from 56 cm to 66 cm at shoulder for male dogs, and 53 cm to 60 cm for female dogs. Laika cynologists in Siberia who have nothing to do with the show lines' breed dogs insist that dogs should have a height of up to 64 cm in order for them to be capable of moving through deep snow. Standard breed requirements that have been deliberately selected for appearance are not relevant for people living the active taiga lifestyle. The voices of hunters and taiga Laika experts have never been heard and

are usually neglected. This sort of arrogance and neglect is unfortunately typical in the kennel clubs. According to Jemima Harrison (2008), a producer of the documentary "Pedigree Dogs Exposed," this story has been repeated across many dog breeds, when kennel clubs have caused an exaggeration of the traits of a particular breed, for instance, heads that are too small or legs that are too short. Typically, breeders neglect dog owners' opinions and continue to produce prize-winning dogs for shows.

There are other similarities between Russian and Soviet views regarding dog breeds. According to Meisha Rosenberg (2011), the prestige of certain dog breeds can correlate to racial hierarchies in contemporary societies: "Belief in the superiority of the pure-blood dog and of scientific breeding were of a piece with the justifications of class, racism, and eugenics" (Derr 2004:238). While pure-blood Laikas are extremely popular among Slavic populations, primitive non-purebreds are signified as a marker of indigenous identity. "The showing of pedigreed dogs divorced the dog from its working history and behavior, favoring a symbolic over a functional appreciation" (Rosenberg 2011:115). It is ironic that breeders originally brought the mixed-breed dogs from Siberian villages to the state kennels and later classified them as Laika purebreds. They pilfered the village dogs for decades in order to create the "super-Laika" breeds that now compete at shows. Haraway (2003) describes modern dog culture as "mongrel technologies of purebred subject- and object-making" (Haraway 2003:16). The Soviet breeders were obsessed with improvement, crossbreeding domestic animals including the Laika breeds. Voylochnikova (2007) states that in 1974 the Laika cynologist, Voylochnikov, experimented with crossbreeding and hybridizing the West Siberian Laika with the grey wolf in an effort to create a "super Laika." After three generations of breeding with the purebred West Siberian Laika, hybrids were 100 percent morphologically and behaviorally Laika-like, but possessing a better sense of smell, vision, and hearing. This hybridization experiment was time-consuming and required a deep knowledge of the Laika breed in general and, due to these difficulties, Voylochnikov had to stop the project. However, whether crossing the Laika with different species and hybrids could have a good result remains an open question. According to Zhurbin (2016), dog-wolf hybridization has potentially negative consequences and it should be done carefully by researchers and under government oversight. To the horror of many top breeders of the Laika, who have undergone classic dog breeding training, amateur breeders and ordinary folks cross the Laika with wolves and other breeds often haphazardly. Some go even farther in their empirical quest, like the Evenki of the

remote taiga kennel located in Zabaikal province, who successfully joined the wolf bloodline with the Evenki Laika line (Brandišauskas, Facebook message to author, November 25, 2017). There is no doubt that breeders have important differences in their methods, influenced by personal experience, empirical research, and knowledge of their diverse communities. However, Laika experts and villagers seem to agree that the high-quality hunting Laika can be found only among reindeer herder-hunters because these skinny and thievish dogs grow up in a natural environment, where they can roam freely as half-wild animals. However, herder-hunters are typically perceived by Russians as primitive hunters with outdated hunting techniques and mongrels, even though their mongrels are true hunting dogs who succeed as hunters in the taiga. More importantly, they and their hunting methods have never been fully understood from a purely profit-making standpoint. I will later present further evidence as to their hunting efficiency in the taiga settings.

As for the Tyvan Laika, there were three separate realities that led to the near extinction of the breed. First, despite the Tyvan Laika being well suited to the dark taiga conditions, they were nearly replaced by the prize-winning West Siberian Laika. Because the Tyvan Laika has diversity of their appearance and size, Laika experts still continue to underestimate them as a breed, considering them to be taiga mongrels. For the second reality, the Tyvan Laika mixed readily with other breeds of dogs brought by newcomers. According to Sikachinskiy (1971), in 1971, many Tyvan Laika had already interbred with other species in the Tozhu district as well as in the Biy-Khem district. The third reality challenging the Tyvan Laika was dog eating, which became a survival strategy for rural people. After the collapse of the Soviet Union, Tozhu villagers did not receive salaries for several months and grocery shelves were empty. People were starving and began to eat dogs, and soon dogs almost entirely disappeared from the villages. As a result of these realities, Tyvan Laika were almost completely wiped out in the Tozhun land.

5.4 Human-Dog Relationships

The unique bond between human and dog in the taiga develops in relation to social and natural environments inhabited by domestic and wild species. According to Bradshaw (2011), the process of "socialization" starts when a puppy is about four weeks old and lasts for several months. Exposure to humans, animals, and the taiga occurs in a gradual way. When the puppy is placed in the *aal* he learns who the people are, and who look after him and other domesticated animals such as dogs, reindeer, and horses. Considering that the majority of Tozhu households have several

dogs, each household shelters its own dog pack, and each pack has its own leader. The puppy learns how to interact and behave with the other dogs in the in the camp. The Tozhu case demonstrates that having a dog pack not only increases the ability for hunters to take a wider range of prey, but also reduces the time and effort that humans spend on training puppies. A good illustration of this is how dogs are trained not to beg for food. In order to prevent begging, the Tozhu do not allow their dogs to sit close to humans or run around them while they eat. Typically, the dogs lie down during this process and wait for somebody to throw food (such as a piece of meat or a bone) to them. Thus, the "no begging" rule becomes absolute in the camp. Not following this rule means immediate punishment for dogs. In summer of 2012, Sayzana's *aal* had two puppies named Kharal[95] and MTS.[96] Kharal had been brought to the *aal* from Saryg-Sep village earlier that summer. Kharal was always drawn to good smells while we ate outside the tent and he was constantly begging for food. Because of his inappropriate behavior he was immediately nicknamed *Khoptak Orus* (Voracious Russian).[97] Sayzana was irritated by this behavior. I asked her: "What are you going to do with Kharal?" Sayzana replied: "Nothing. This is a task for older dogs to teach the puppy. You will see it." A few minutes later, one of the dogs attacked Kharal, and Kharal ran away whining. Sayzana laughed: "Look, the older dog disciplined Kharal." The same scenario was repeated the next day at lunchtime. After this, Kharal learned that he not only would not receive food for his begging behaviors, but that he would also be attacked by the other members of his household pack. In view of this, the herder-hunters with whom I lived recognized the first introduction of a puppy to humans and other dogs as crucial to how the puppy will later react to his social environments. In the above example, the shared approach was to be patient and gentle with Kharal, and to let the pack discipline him more harshly. The herder-hunters recognized that leadership from the older dogs was essential to teach the low-ranking puppy his role. In fact, they expect the pack leader to punish misbehaving dogs. An obvious advantage is that puppy training is shorter and much more effective, which reduces the level of human effort in such training. The view among herder-hunters is that, if they were to discipline the puppy, the process of socialization would be considerably longer. As I said earlier, this shared socialization of the puppies also includes encounters with reindeer and horses. I once watched Kharal and MTS play

[95] The name of a river.
[96] The name of the Russian telecommunication company that provides cell phones, data, and other products and services.
[97] Kharal was brought from a Russian household.

with each other. They were chasing and pinning each other to the ground, while growling loudly. When the brawling puppies came close to the reindeer, one of the reindeer became irritated and kicked Kharal. Kharal whined, and the puppies ran away from the reindeer. Vika commented: "*Oldur*!"[98] Thus, the puppies learned how to behave around reindeer. Later, they also learn what a horse is and they avoid coming too close to reindeer and horses while playing.

It is well known that during the process of domestication animal species undergo significant modification (Clutton-Brock 1981). One of these significant morphological distinctions that come as a result of domestication is size diminution (Crabtree 1993, Tchernov and Horwitz 1991). Zohary et al. (1998) distinguish two types of selection occurring in the process of plant and animal domestication: (1) a selection consciously made by humans for desired traits, and (2) an unconscious selection caused by the removal of plants or animals from their natural environment and placing them in a new, human-controlled environment. Changes to the environment caused by humans automatically cause drastic changes in selection. Armitage (1986) states that the tamed wolf evolved into the domestic dog after a certain number of generations bred repeatedly in captivity. The Tozhu case demonstrates that wolf/dog domestication was the result of both intentional and unintentional selection. Studies of modern hunters working with the Laika suggest that ancient hunters deliberately bred medium-sized dogs. However, archeological studies in Eastern Siberia[99] show that the size of these dogs varied (Losey et al. 2013). However, the size of dogs also depends on their lifestyle, particularly what tasks they perform alongside humans: hunting, guarding or simply being a pet.

The medium size of the Tozhu dogs is well adapted to the tasks that they need to accomplish in the taiga. The dog should be light enough to maneuver in the snow (including the difficult snow crust that forms in spring) in the mountainous taiga and tall enough to move through the deep snow. Under human protection, animals have access to food sources that differ from those in the wild (Zohary et al. 1998, Zeuner 1963). The dogs are fed once a day, and their diet depends on the food available and the season. Typically, dogs are fed with *yt chem*, or *boltushka* in (stirrer), which is made by dissolving flour in hot boiled water. If the hunt is successful, particularly in winter, animal legs and other meat chucks are also used as dog food. During the hunting season, Sayzana cooks the *yt chem* with barley. The medium-sized Laikas do not require much food and

[98] Tyvan exclamation, meaning "Look, what happened."
[99] Neighboring province.

eat comparatively less than imported dog breeds. This quality is critical for herder-hunters because they sometimes endure poor hunting seasons with food shortages (Figure 29). Because many people keep several dogs in the household, it can be a real challenge to feed them in a time of food shortage. In addition, multi-dog households have to hunt more often than single-dog households in order to feed their dogs. In fact, herder-hunters pointed out to me that it was not practical to keep larger dogs because they require so much more food. This type of unconscious selection, such as optimizing dogs to need less food, also contributed to the medium size body of their dogs. Tozhun ethnographic data indicate that there is limited variance in body size for contemporary dogs in the taiga zone, with a typical variance ranging up to (approximately) from ten to fifteen cm. The Tozhu have bred and continue to breed medium-sized dogs in order to fit the needs of their households. In addition, the Tozhu practice culling of puppies and young dogs. Smaller puppies or puppies without agility are eliminated from the pack. The rationale behind culling is to maximize the population of medium-sized Laikas with good hunting skills in the pack. The medium size is a widely recognized trait that characterizes the taiga Laika. It is reasonable to assume that such culling of puppies and young dogs has been practiced since dogs became hunting partners in Tyva.

Figure 29. A herder-hunter after a successful sable hunt. November 2014. Photo by Tayana Arakchaa.

It is important to emphasize preconceptions that still exist in popular literature about the Laika. It is generally assumed that indigenous peoples do not care about the Laika's appearance. Obviously, the Tozhu did not evaluate the dogs' capability to performing hunting tasks based on their physical appearance, which is the chief measure for performance of purebred dogs today. Indigenous breeds have been bred for centuries and were classified according to the jobs they performed. There are no specific terms for each breed in the Tyvan language; they are known as *anchy yttar,* hunting dogs, (Tyvan Laika and Taigan) and *kadarchy yt,* herding dog (Kadarchy Yt). With this type of classification, any hunting mongrel also falls into the broad category of *anchy yt*. Turchaninov (2009 [1915]) stressed that hunting dogs had a diverse appearance/coloration as well as variation from short hair to long hair, at least in the early 20th century.

Lyudmila Trut (1999) argues that an animal's floppy ears are the byproduct of domestication. However, medium-sized ears that prick upward are the most common trait among the Laikas, which is the reason that Laika have received the nickname *Ostroushka* (Pointy Ear)

(Kubyshko 2002). These ears enable Laikas to hear well. If a Laika hears a sound, it can rotate its ears in the direction of the sound without moving its head (Beregovoy 2002). Because the Tozhu use their Laikas almost all year round, upwardly pricking ears become critical for hunting wild animals. By the early 1960s, as a result of intense crossbreeding, including with the German Shepherd (brought in by the Slavic population), many Laika dogs had floppy ears (Lanikin 1961). According to Tugolukov (1969), the Evenki thought that floppy ears would reduce a dog's hearing ability, as well as its capacity to hunt wild game. Lanikin (1961) refers to these dogs as *laikoids*, or mixed dogs, looking similar to the Laika but not meeting official Laika standards due to their floppy ears. Because of this unwanted crossbreeding, many remote taiga communities prohibited the importation of other dogs (see Lanikin 1961). Russian informants in this research also confirmed that during the Soviet era, villagers required newcomers who arrived with dogs to get rid of their dogs (this requirement was common among the Slavic population).[100] Interestingly, elder Dooshka Lopsan-Bazyr claimed that floppy ears characterized the Tozhun Laika. Other informants recalled that the majority of Laika had pointy ears while others had one floppy ear. The herder-hunters reported that two floppy ears were not a common trait among the Laika, while also noting that one floppy ear was quite rare. The Tozhu considered a single floppy ear as a trait that characterizes the Laika today. For them, one single floppy ear does not severely reduce the dog's acute hearing sense and does not affect the dog's overall hunting behavior.

In the taiga herder-hunters relate to dogs more personally than they relate to reindeer, as they consider dogs to be their ancestors (Møller 2015). Success in subsistence situations is impossible without dogs and maintaining human-dog relationships is crucial to survival. Although dogs are characterized as domestic animals, they are not strictly domestic or wild in the taiga. Dogs are allowed to roam freely in the taiga as *cherlik* (wild, roaming) for long hours, during which they feed themselves before returning to the camp on their own. This practice was widespread in the past in all taiga communities and continues to exist in the herding camps and villages today. Dobney and Larson (2006) state that a strict wild/domestic dichotomy prevents a deeper understanding and explanation of the domestication process. The nature of human-animal relationships is based on traditional knowledge and practices of hunting and reindeer herding. This ancestral knowledge envisions animals, and particularly dogs, as 'moving' between domestic and wild realms; in other words, between freedom and captivity. Tozhu dogs spend their lives

[100] I was unable to find out if there were official dog importation regulations in the Tozhu district.

somewhere along the continuum from domestic to wild. According to Zeuner (1963, see also Stammler 2010), the domestication process of the wolf is based on voluntary symbiotic relationships, in which animals act in the role of guest and humans act in the role of host. In this symbiotic host-guest association both humans and animals benefit from each other. Humans provide the food and the wolves assist with hunting. At the present, this voluntary symbiotic association still continues in the taiga, with the hunters as the dominant partner. The Tozhu recognize dogs' autonomy as natural explorers and passionate hunters. The Tozhu like to describe their dogs as "he/she is good hunter" or "he/she is the best hunter in the region." The herder-hunters describe the dogs' excellent hunting skills, particularly extraordinary tracking skills, in exquisite detail. According to Anoka, he can actually feel his dog's hunting desire and therefore allows his dog to roam and hunt small game in the taiga. Dogs are usually released from captivity during summer, because in this season hunters' dependency on dogs is reduced. Oehler (2016) states that one of the benefits to releasing dogs in summer is that it allows them to maintain their level of physical activity between hunting seasons. However, the Tozhu say that during the summer season they use dogs moderately in hunting, depending on the prey they encounter. Dogs usually are useful only in hunting elk, roe deer, and musk deer while for hunting other species dogs can offer less assistance. Herder-hunters generally prefer to keep their dogs tied up to the reindeer saddle until they discover tracks or prey. According to Anoka, having a dog pack in the household requires a hunter to hunt often in order to feed not only humans but also dogs. Once, when Anoka killed a young red deer, he stated that the red deer meat would last five days if feeding five people and four dogs in the *aal.* Thus, in order to reduce the feeding load, herder-hunters encourage their dogs to find their food in the taiga in the summer. I witnessed the same practice in villages when some households released their dogs from the yards.[101]

From time to time, herder-hunters keep their dogs tied up to a tree or in a kennel. There are different reasons why the Tozhu would keep their dogs tied up. The major reason is that the dogs could escape from the camp to scavenge in the taiga for extended periods of time (i.e. more than just a few hours). The hunters realize that no dogs means no hunting success. When a herder-hunter needs his dogs to go hunting, his dogs cannot be off on their own in the taiga. In this context, Sergey does not simultaneously tether all three of his dogs. If he tethers the pack leader, he will let the other two roam, or vice versa. The Tozhu perceive tethering as a necessary means to reduce

[101] Including the villages in Biy-Khem district.

dog distraction. During the fall hunting season, the herder-hunters practice continual tethering because fall hunting is their main economic activity. The owners give the dogs only a short break from captivity. Hunting sable and musk deer in the hilly, snowy taiga requires a high level of physical performance. After six to eight hours of hunting in such challenging terrain, the dogs need to recover. At night, dogs, particularly young dogs, can be easily distracted by hares that come out to feed in the late evening in the valley, where the reindeer herding camp is located. After chasing hares all night an exhausted dog cannot perform its hunting tasks well. According to Sayzana, experienced hunting dogs handle this situation maturely and will choose to rest for the night, ignoring the hares. Typically, these dogs have learned from the past that they need to save their energy for the coming hunt and are smart enough not to chase the hare. The owners know their hunting behavior well. If the dog does not perform well or pretends to hunt when he is only slacking, the dog will be beaten. However, this happens extremely seldomly, and only as an exceptional form of punishment.

One of the challenges of the multi-dog household is that some dogs do not get along well with each other. In addition, high-ranking older dogs can abuse lower-ranking puppies. Tethering is a necessary means to prevent injuries due to dogfights. For example, when unleashed, the dogs Enikey and Belyy always fought with each other. Belyy belonged to Dulo, who comes for the fall hunting every year. Fierce, strongly-built Enikey was born to be a leader and would take charge at any given chance. Sayzana and Dulo occasionally let their dogs fight watching to see who would win. If the aggression got too heated they would break up the fight and tie up the dogs. Considering this tension, Andrey never took Kharal and Belyy together to hunt, even though they would not fight in his presence, as he, Andrey, is the ultimate pack leader.[102]

Another reason to tether dogs is to avoid the killing of pregnant deer or deer with offspring in the spring. For the Tozhu, it is a "sin" to kill a pregnant deer or deer with offspring. According to elder Balchyy-ool Baraan from Adyr-Kezhig,[103] his family recognized that dogs were, by nature, predators. Spring was a critical period when tethering the dogs would maximize the survival of deer offspring and to ensure the continuation of the taiga life cycle.

There is a misconception that reindeer herder-hunters do not care much about dog training. As was explained in Chapter 4, the herder-hunter hunting system is based on mimicking the rules

[102] Dulo would leave Belyy in the camp and go assist in the hunt.
[103] Balchyy-ool grew up in a reindeer herding family.

of wolf behavior. The reindeer herder-hunters take a different approach to dog training from standard methods with a set of commands. Western style training is a challenging task and requires investment of time. In the taiga, humans practice wolf-pack approach, in which young dogs mimic the behavior of older dogs during the hunt, so the herder-hunter does not waste his time on training dogs. Mimicking is a fast, efficient method and always gives positive results. One hunting season is enough for a puppy to learn to imitate the hunting techniques of mature dogs. In reindeer herding camps, you do not hear typical verbal commands: "Down," "Sit," and "Speak." During my fieldwork, I heard the herder-hunters use only one command "*Chor*" (go away). When I asked herder-hunters what dog commands they used, they replied that they did not use them at all. All were puzzled by my question, asking me in reply: "Why should we?" In this story of co-habitation of humans and animals, dogs are not just "partners in the crime of human evolution" (Haraway 2003:5); they are good readers of human behavior (Haraway 2003). Herder-hunters stress that because dogs have lived among humans all their life, and humans talk to them, dogs are smart and understand humans well. There is no need to give explicit verbal commands, especially during the hunt when everybody should be quiet while searching for other life forms. It would be disruptive to the hunt to make a prominent sound by giving a command to a dog. In the past, the Tofa would make a muzzle for a dog with a tendency to bark. They would place a rope around the dog's muzzle and tied it closed. In short, the whole process of taiga hunting is fundamentally about a pack of "wolves," committed together to pursuing and subsequently sharing the kill. Hunting success depends on successful collaboration between humans and dogs as well as good collaboration between animals. Oehler (2016) states that effective visual communication between hunters and dogs is essential in the taiga. Hiromi Kobayashi and Shiro Kohshima's comparative study (2001) reveals the effects of the unique morphology of the human eye. Humans possess highly exposed white sclera as well an "eye outline [that] is extraordinarily elongated in the horizontal direction" (Kobayashi and Kohshima 2001:434). In contrast, in nonhuman primates, dark coloration of the eye and area around the eyes is an adaptation to conceal the direction of gaze. The white visible sclera and open eyelids of humans are adaptations to enhance the directivity of the gaze. Shipman (2015:215) suggests that a "highly visible direction of the gaze could have been a big advantage in hunting cooperatively with wolf-dogs" because it gives humans the ability to make a nonverbal signal with their eyes that other creatures, even nonhumans, can read and recognize (Shipman 2015).

Another study conducted by Sayoko Ueda et al. (2014) compared facial color patterns around the eyes of twenty-five canids. Using photometric methods, they divided canids into three types based on indices of their gaze signal. A-type canid species had light-colored irises, dark pupils, and light coloration around the eyes. It is easy to detect the gaze direction of A-type canids. B-type faces have dark-colored irises, which conceal the object of their gaze, but light fur around the eyes, making eye position clear. C-type faces have dark-colored irises and no facial coat contrast, which camouflages the gaze direction. The researchers state that A-type canids tend to engage in group-living and group-hunting while B-type and C-type species have a higher proportion of solo/pair-living and solo-hunting. The team noted that wolf-like canids of B-type and C-type species living in groups may use vocal and/or other visual signals as a primary means of communication among the members of the group. However, in dogs, facial color patterns vary due to the domestication process, but they hold their gaze twice as long as wolves do (Ueda et al. 2014). In the Tozhu case, the Laika have diverse coat colors. According to the typology developed by Ueda et al. (2014), the Tozhu Laika demonstrate A-type and B-type faces; thus, the dogs are adapted for gaze-heavy communication. However, one of the advantages of the Laika is that they have the ability to communicate through acoustic signals as well. These dogs can read the human gaze and give a vocal signal to humans, who functions as their most important hunting partners. Both visual and vocal communication among hunters is fundamental in working successfully with a canid pack. With minimal communication, the herder-hunter functions as a pack leader coordinating the hunt and taking into consideration dog age, sex, specialization, experience, and prey to be sought. The dogs are able to recognize and read the pack leader's body language and tone of voice. These human-dog relationships are based on trust and form the means for forming the hunting partnership in which humans and dogs cooperate with each other to achieve their common goals.

Another important aspect to stress is that the Tozhun form of hunting with dogs is perceived by the herder-hunters as a selective and humane form of killing. In the villages, when I talked to Russian hunters, they always made comments about the Tozhun way of hunting with reindeer and dogs and without using traps as not profitable and outdated, although they admitted that the herder-hunters had the best hunting dogs. Those Russians usually used a large number of traps and boasted about their good harvest quotas. However, the issue with trapping is that it produces a quick kill of multiple animals. The Tozhu consider using traps as resulting in the unnecessary killing of many

extra animals that are captured and wasted. Some of the trapped animals are eaten by predators before the trapper returns to check his trap line. Other animals gnaw their paws in order to escape from the trap and later are likely to perish from the injury. The most important difference is that the Tozhu see the sable population as a renewable resource, while trappers, with their view toward pure profits, push toward to the extinction of the sable. The following passage, as related by Anoka, illustrates the relationship between the sable and humans:

> These Russians care only about profit and set up long trap lines to catch many animals. For example, one Russian can catch fifty sable on this hill [pointing by his hand to the nearest hill]. He would kill the entire sable population. We hunt with our dogs and with dogs we cannot kill all sable. We know for sure that at least one to three sable will survive on this hill and they will produce. When we come back the next fall, there will be sable to hunt. In addition, trappers need to check their lines frequently walking through the deep snow. What a boring life [he waves his hand]! *Azart*[104] *chok* [no excitement, passion]. What kind of hunt is this? I cannot imagine me trapping. We hunt with dogs riding a reindeer. It is very exciting and interesting to chase an animal. *Azart* is important in hunting.

Sable population depletion has been a theme in the recent past, with the influx of the Russian population into Siberia. With their dogs, the Tozhu hunt selectively, moving from one hunting territory to another during the winter. Their way of hunting is intentionally structured not to disrupt the balance of the animal population, and when they return the next year, the animal population has already been restored. Although Prokof'eva (2011 [1957]) stresses that sable have never been a sacred animal among the Tozhu, I found in my research that sable paws are used as a charm. I bought a sable paw charm from a Tozhu woman at the State Fair in Kyzyl in 2013. She told me that the sable is a predator and has a strong spirit. His claws are considered to be protection from bad spirits in a similar way to a bear' claw charm. In addition, the fur looks attractive and women especially enjoy wearing it. Herder-hunters say that the sable fights fiercely with dogs, although this small predator is much smaller than a dog. A sable is a strong and brave animal that deserves much respect.

5.5 Hunting with Dogs

Domestication was a very long process. Bradshaw (2011), who studies animal behavior, proposes that wolves have chosen us more than we have chosen them. Over time, dogs were the

[104] *Azart* is a loanword from a Russian language, referring to passion, ardour, and also to games of chance and gambling.

first to inspire humans to use animals to improve their lives. Wolfgang Schleidt and Michael Shalter (2003) suggest that our bond with dogs is the result of a complex process of co-evolution between humans and canids, in which humans and wolves both had mutually satisfying relationships and exert significant influence on each other. Domesticated canids played an important role as human technology and provided true companionship that was the stimulus for domestication of other animals. Thus, dogs dramatically affected human evolution (Bradshaw 2011, 2012). Many nomadic cultures in Central and Inner Asia have been profoundly influenced by wolves. Early hunter-gatherers were natural observers who mimicked some traits of wolves' behavior, particularly their hunting strategies.

The hunting of wild animals has always been essential to the life of Tozhu herder-hunters. Today, they depend entirely on hunting to obtain food and earn cash income. The fall hunting season is critical to herder-hunters because hunting sable and musk deer is the only economic opportunity available. Sable fur and musk deer glands are highly valued on the national and global markets. Although the date of the hunting season is subject to change depending on weather, the fall hunting season often opens on the 20th of October and closes at the end of December. The first permanent snowfall usually occurs between October 15th and 20th, marking the beginning of the fall hunting season, because it is easier to search for and catch prey in the snow. During this season, herder-hunters hunt with reindeer, dogs, and firearms. Dogs play an integral role in hunting techniques. A majority of the dogs used are Laika or mongrel dogs with Laika bloodlines. According to Kent Redford and John Robinson (1987), dogs are very effective when hunting; animals often will seek a refuge or assume a defensive posture when chased by dogs. At this point, the Laika is useful because it hunts fur-bearing animals, who seek refuge in trees or burrows, and big-game animals, and distracts wild animal attention by making threatening dashes or biting at animals' legs (Beregovoy 2002, Vakhrushev and Volkov 1945, Voylochnikov and Voylochnikova 1982). Sikachinskiy (1971) reports that 70 percent of fur pelts in Systyg-Khem *gospromkhoz* (in the Tozhu district) were obtained with the aid of reindeer and dogs. Studies on hunting dogs suggest that the benefits and usefulness of dogs varies significantly in different regions. In general, dogs are "valuable hunting accessories" (Koster 2008:935), and the primary advantage of hunting dogs is an increasing the encounter rate with particular species of animals (Ikeya 1994, Koster 2008, Noboyashi 2006). Dog effectiveness has received much attention from Laika experts who stress that the Laika is profitable for hunting a variety of species, both small and large game

(Beregovoy 2002, Vakhrushev and Volkov 1945, Voylochnikov and Voylochnikova 1982). Koster (2008), in his study of indigenous Mayangna and Miskito in Nicaragua, applied optimal foraging theory to examine the decisions made by an "optimal forager" working with a dog, tracking encounter rates and pursuit of particular prey. From optimal foraging theory, profitability of prey depends on the pursuit time. For instance, the more time spent pursuing an animal, the lower it ranks in the optimal diet set. A more profitable animal requires less pursuit time. Another finding is that "contra the basic prey choice model, hunters with dogs typically cannot make pursuit decisions before paying a time cost. The dog-related costs, dog commitment time and catching up time, are an additional constraint, and these variables should be measured in any optimal foraging study of hunters with dogs." (Koster 2008:942). There are several factors to consider for a Tozhun "optimal forager." The forager should have perfect knowledge of the taiga environment, including its flora and fauna, knowledge of his hunting companions (dogs and reindeer), and awareness of the relative risks and nuances involved in pursuing a particular prey type. Similarly, as with other studies, the primary benefit of dogs to Tozhu herder-hunters is an increased encounter rate with sable and ungulates. Moreover, reindeer contribute to this encounter rate as well, because they are the most reliable means of transportation in the heavily forested taiga. A hunter riding a reindeer moves swiftly through the snow and tussocks and is able to search for prey in close cooperation with his dog.

My data on dogs includes basic demographic information: age, sex, and name. First, I estimated ages of dogs based on the interviews with herder-hunters, which included when an owner obtained a puppy and when that dog started to hunt. Secondly, I recorded any specialization of a particular dog in terms of its hunting skills (small-game dog or big-game dog). During the observation period, I recorded the departure and arrival time of herder-hunters and dogs as well as which dogs accompanied the owner in order to estimate time spent hunting. After herder-hunters returned home, an estimated value of the harvested animal was calculated using the quality and color of the sable pelts and the weight of musk deer glands. If several dogs accompanied a herder-hunter, he was asked which dog contributed most to the kill. In addition, people in Adyr-Kezhig and Toraa-Khem were also interviewed about their communities' hunting dogs.

Anthropologists typically examine the Tozhu herder-hunters in terms of the reindeer herding economy and human-*tarandus* relationship. In the Tozhu district, large reindeer herds, encouraged during the Soviet era, are no longer a practical goal for herder-hunters. Rather,

switching to a paradigm of hunting and minimizing risks associated with large-scale reindeer herding has become the preeminent concern among the Tozhu. Hunting seasons and techniques are important for understanding productive strategies and their influence on canine-human relationships.

Fall hunting can be divided into two phases. Tozhu herder-hunters do not use traps for fur-bearing animals, but they occasionally use snares for musk deer. During the first phase, herder-hunters start hunting sable under comparatively moderate weather conditions. By the middle of October, the sable assume their winter coat, which is highly desired by herder-hunters. At this time, a below-average temperature takes over the taiga forest (5-25°C degrees below zero during the daytime); this phase typically lasts for a month and a half. Practically, herder-hunters have a window of about one and a half months for intensive hunting. Hunting conditions are good for the first two to three weeks, after which sable become scarce around the camp's vicinity, and herder-hunters have to move further and explore deeper into the taiga. By the end of December, the temperature drops to 25-40°C degrees below zero, accompanied by more snow. In this phase hunting becomes much more challenging.

Here I would like to describe the typical daily routine in the *aal* in December. Anoka, the elder brother of Sayzana, usually gets up at 5:00 am, puts wood into the metal stove, and smokes a cigarette. Then Anoka would go back to bed, because everybody else would still be asleep. About 7:00 am Andrey would rise. The day at the *aal* starts and ends with a tea "ritual"; having *kara shay*[105] and smoking a cigarette. *Kara shay* is a strong black tea prepared with six to ten teaspoons of loose tea in the metal cup. This *kara shay* "ritual" originated in Russian prisons and has adapted well into Tozhun tea-drinking culture. The water (with tea) is boiled on the small stove. *Kara shay* is drunk without sugar or milk. Herder-hunters believe that this high caffeine drink gives energy and prevents sicknesses that can be caused by the humidity in the taiga. *Kara shay* drinking is an exclusively male activity practiced several times a day (women may occasionally have the tea if they feel they are getting a cold or are very tired and need to boost their energy to do taxing errands). The men usually squat in a circle and pass a metal cup of *kara shay* and a cigarette (usually one cigarette is shared among the group) clockwise to the next person while they all have a slow conversation. Anoka and Andrey would have *kara shay* while talking about their plans,

[105] *Chifir* in Russian.

hunting routes, and dogs. Later, Sayzana would get up, start cooking breakfast, and make dough for the bread or *dalgan* (fried bread).

Driving reindeer to the camp in the morning is Anoka's duty. Anoka likes to walk, and he usually does so, repeating his favorite expression, "Motion is life," before he leaves the camp. He would disappear with a *dayangysh* (a stick) into the hazy morning taiga between 7:00 am and 8:00 am; after an hour or two he would drive the reindeer back to the *aal.* If the herder-hunters do not bring their reindeer to the *aal*, many of the reindeer will wander farther away from the *aal's* vicinity, and herder-hunters will lose control and, in the worst-case scenario, may lose their reindeer. Sometimes Anoka finds only a few reindeer. His highest priority is to find some reindeer, including the working bulls—because no working reindeer, means no hunting. Andrey sometimes would join Anoka to search for reindeer in the taiga. When the reindeer arrived to the camp, Sayzana would give them salt via the *ongacha*[106] (salt feeder) and count the number of reindeer that arrived and calculate those missing. She, Andrey, and Anoka would tie certain reindeer; the ones inclined to roam far away from the camp would be the first ones to be caught and tied to a tree trunk lying on the land. Other reindeer would stay for a while in the *aal* and then leave to explore the pastures again. The tied reindeer would be untied around lunch or in the late afternoon. The fewer reindeer returning in the morning, the longer the reindeer remain tied in order to lure the other reindeer to return.

After having breakfast, the men leave the *aal* at about 10:00 or 10:40 am. Anoka is always in a hurry. He would usually be the first to leave the *aal,* and Andrey would depart a bit later (Figure 30). Each hunter would take one dog with him, tying the dog to their saddle with a rope, and heading in different directions. When each herder-hunter arrived at their hunting site, he and his dog would start searching for sable tracks. Meanwhile, Sayzana would cook dog food and dinner. At about 4:00 pm, both men would often return to the camp. They would feed their dogs and then they have *kara shay* followed by dinner. Anoka and Andrey would discuss their trips in detail, particularly central moments when something significant happened during the hunt: the animal tracks they saw, dog pursuits, the methods they used to obtain their prey, the dogs' contribution to the kill, and sable resistance and fight. The conversation usually goes smoothly and slowly. The more the herder-hunters hunt, the more they enjoy their stories. After having *kara shay*, they would take their trophies, sable with golden honey fur, and carefully skin them and let

[106] *Ongacha* is a carved tree branch.

the pelts dry on a small board. After 8:00 pm Anoka and Andrey would have the last *kara shay* of the day while discussing their routes for tomorrow. After this, Anoka goes to bed. Andrey and Sayzana would then spend time with their three-year old granddaughter. At about 9:00 pm the family would go to bed.

Figure 30. Anoka is getting ready for the hunt. Dogs Belyy and Kulak are excited to go, but he is taking only one of them. December 2014. Photo by Tayana Arakchaa.

The first phase of the fall hunting season is short and very intense, so the herder-hunters are prepared for anything, and try to take advantage of every situation that presents itself. The Tozhu have extensive knowledge of the taiga-tundra, climate, animals, and plants, and their experience helps them to succeed in hunting. There are several nuances that a herder-hunter should consider in his hunting strategies. There can be many tracks; the chief object of his search is to find fresh tracks. He checks the tracks with a *dayangysh* while riding a reindeer; there is no need to dismount the reindeer. If the tracks are old, they are frozen, and a *dayangysh* will break the crust. If the tracks are fresh, the *dayangysh* will go smoothly through the snow. When a herder-

hunter finds fresh tracks, he calls a dog to scout out the tracks. Alternatively, a dog can sniff around for the right tracks, and upon finding them, will start its search. It is the dog's task to pursue the sable. A sable moves on land and usually will seek refuge from pursuit on a crown of a fir tree. The dog's barking alerts the herder-hunter that the dog has detected a sable for prey. If the barking is intense, the sable is corralled. The hunter arrives to the site, dismounts the reindeer, and kills the sable, making sure not to damage the precious pelt. A high level of marksmanship is involved in shooting the sable's eye (or at least the head). The sable will fall off the tree, and the dog immediately grasps it. It is a natural trait of the Laika to grasp the prey animal in its mouth. The herder-hunter should take the prey from the dog as soon as possible, otherwise, the pelt will be damaged. Pursuit by the dog will often end with the sable seeking refuge in a hollow trunk or under piles of large stones. In the first case, the herder-hunter will put sticks over the hole to prevent the sable from escaping. Then he cuts a hole in the trunk with an axe. If a sable hides under the scattered stones, the hunter will burn a piece of birch bark (which he carries with him), inserting it into an opening in the stones. If there is a large space under the stones, it can take a long time for the sable to attempt to flee, but the herder-hunter can wait the whole day if he has to. The dog watches and will attack the sable if it tries to escape. Although a small predator, a sable can fight the dog quite fiercely and may bite the dog's nose. This fight occasionally ends when the dog kills a sable. Because of these fights with sables, hunting dogs often have scars on their nose or muzzles. The sable is usually skinned at home, and the meat goes into the cooking dog food. In the past, the Tozhu as well as the Tyva ate sable meat (Vainshtein 1961), but today, they do not because it has a comparatively strong odor.

The second phase of hunting begins at the end of December. When the temperature drops significantly, it becomes nearly impossible to find sable because they hide deep in their burrows. It is fruitless to search for them. In addition, when it is cold, a sable runs very quickly, and it is a major challenge to catch it. When the sable become scarce, herder-hunters must switch to hunting musk deer. This type of hunting is complex and challenging compared to sable hunting. If a dog detects a musk deer, it will chase the deer. The problem is that a herder-hunter needs an adult male musk deer because of his valuable musk glands. Dogs pursue both male and female, as well as young and old, musk deer. The speed of the chase is critical for this type of hunting. A herder-hunter sometimes cannot ascertain the gender of the musk deer just by looking. It takes anywhere from several minutes to long hours of the chase to catch up to the dog going through the densely

forested taiga. The pursuit of the musk deer sometimes can take up to two or three days. If the dog has not succeeded by the end of the day, the owner calls the hunt, and they return home; or the owner can leave without the dog if necessary. On the next day, the herder-hunter with his dog (or multiple dogs) come back to the site and continue their pursuit of their prey. A musk deer usually seeks refuge on cliffs where it can easily hide from the dogs and the hunter. In addition, a musk deer can hide so well among the cliffs that the herder-hunter cannot detect it. In this case, the herder-hunter invites another hunter to join him. The herder-hunter usually knows musk deer behavior and can guess the exact place in the cliffs where the dog can corral the musk deer. Even though a herder-hunter is not sure if the musk deer is male or female, he has to continue the pursuit because he needs to eliminate this musk deer. If he lets the deer go, the next day the dog will find the tracks of the same deer and the herder-hunter will waste his time pursuing the same animal. According to my informants, they encounter from one to three males for every twenty females. From an optimal foraging perspective, a musk deer is less profitable than a small sable, as it is often takes up to two-three days without any guarantee of catching an adult male deer before one is caught. If a hunt is successful, the prey is skinned on site, and the front legs and intestines are given to the dogs right away as a reward. This reward-based method is essential in big-game hunting and herder-hunters emphasize that the dog's predatory instincts should always be encouraged and rewarded in order to achieve consistent hunting success.

A variety of literature on hunting dogs exists, but the research says very little about sex differences between male and female dogs. Some anthropological studies from different geographic areas show that hunters prefer male dogs because they are more profitable than female dogs (Koster and Tankersley 2012, Warren 2004). During my field trip in the fall hunting season, I devoted myself to asking people the following questions: How do you choose a puppy? How do you make the choice between a male and a female? What advantages and disadvantages do males and females have? How many dogs are ideal to have? My informants claimed that the difference between the sexes is generally far less pronounced in their behavior, so the choice between a male or a female is a personal one. Based on my observation and data, there is sex-related variability in the hunting skills of dogs.

I have mentioned before that Tozhu dog training is based on wolf-pack mentality, particularly mimicking the behavior of older dogs. A puppy is easy to train and learns quickly to hunt from older dogs. When a puppy reaches an age of five to six months, herder-hunters purposely

start taking it on hunting trips, so it can observe the techniques of other dogs. It is generally accepted that one fall hunting season is enough for a dog to be trained to hunt. After this, the dog starts to hunt small-game animals, such as sable. Depending on the dog's personality, later its attention can be switched to big-game animals. Normally, it takes two years for female dogs to become accomplished hunters and up three years for male dogs. However, in general it takes three to four years for both genders of dogs to become skilled hunters. Female dogs tend to pursue small-game animals. Male dogs are comparatively larger in size than female dogs and are more inclined to pursue big-game animals, although a number of male dogs can harvest small game for the first two years while female dogs will tend to hunt to big game earlier. In addition, hunters reported that many male dogs are quite unintelligent until they reach three years old. For some it takes even four years to become accomplished hunters. Female dogs are generally more responsible than male dogs. They take their hunting task seriously and are usually diligent and hardworking. Thus, it appears that female dogs are more profitable than male dogs because they excel at harvesting sable, a valuable prey that can bring income to the herder-hunter.

Anoka has only one female dog, whom he named Kulak (Ear) because she had big ears compared to her small body size (Figure 31). Anoka chose her when she was a puppy from another reindeer herding camp. Kulak was a petite mongrel, clearly with some strong Laika bloodlines. Other herder-hunters who visited Sayzana's *aal* were amused to see such a small hunting dog. Anoka commented that it was his misfortune that all his dogs turned out small. In fact, he did not care if the puppy was a Laika or a mongrel because he believed that all dogs were predators and natural hunters. In the fall of 2013, when Kulak was six months old, she had her informal training, and one year later she debuted as a novice hunter. Anoka described her as an *azart* (passionate), a life-loving, diligent dog. I went on a hunting trip with Anoka into the hilly and densely forested taiga. On this trip I discovered that Kulak did not bark when she corralled a sable in a tree.

Figure 31. Kulak corralled a sable. December 2014. Photo by Tayana Arakchaa.

After the dog ran off, it took us about forty minutes of riding through the hills and snow to hear her voice. Instead of barking she howled quietly. In addition, I found out that Anoka had some difficulty hearing. While he was following Kulak's tracks, he did not hear her, and he did not hear me shouting his name until I approached him. Because of this difficulty, I became Anoka's ears and pointed my *dayangysh* in the direction which Kulak was howling. A sable hiding in the crown of the larch was detected and was killed by Anoka. In turn, it was an unpleasant discovery for Anoka that he could no longer hear his dog. Obviously, it took much longer for Anoka to catch up to his dog, due to being hard of hearing. By the end of December, Kulak had harvested forty sable, an impressive number for a novice. However, Kulak had an obvious disadvantage; she did not bark when she corralled her prey. Nikitin explained to me that this could happen if a hunter used a mongrel instead of a purebred Laika. Although many mongrel dogs have good hunting skills, the probability that a mongrel dog has various defects such as howling instead of barking, or not barking at all, is much higher than with the purebred Laika breeds. Regardless of her howling, Kulak's hunting skills were good and certain to improve. Anoka hoped that Kulak would switch to big-game animals, particularly musk deer in January. Kulak was my favorite dog in Sayzana's camp because she was friendly, playful, diligent, and hardworking. However, I was skeptical that she would make the transition to big game because of her small size. I could not imagine petite

Kulak pursuing a musk deer through the deep snow. Sayzana commented on it, "I am not sure, but anything could happen. You never know with dogs. We will see." Herder-hunters stress that a dog's attention often switches eventually to big game when it is the right moment for that dog. The most important thing for a hunter is to be patient with a young dog and never push his dog to big-game animals before the dog is ready. If a dog is pushed to hunt a big-game animal too soon, it can become scared and refuse to hunt big game. The worst scenario is that a dog can refuse to hunt any animal. To my surprise at the end of the hunting season, Kulak switched to hunting musk deer. She assisted in catching several musk deer, three of which were males.

Some studies state that male hunting dogs typically become the leaders of the pack. Ivan Permyakov (2010), however, states that dominant traits are common only among females of the West Siberian Laika. It seems that this statement has its origins in the high ranking of the West Siberian Laika, which was the more popular Laika, underrating the abilities of the East Siberian Laika. My informants reported that there is no sex-related variability in being a pack leader in either breed. Both males and females can become alpha dogs leading a pack. Growing in the harsh conditions of the taiga, female dogs can be as dominant as male dogs. Moreover, some female dogs can be fierce, skillful fighters who are not afraid to attack bears. For instance, Sergey had three dogs in his *aal* over the summer of 2013. The leader was a female, Bichenyg (Younger), who was an alpha and a multi-purpose dog (Figure 32). She was the best hunting dog in the *aal.* In contrast to the two other dogs in the household, Bichenyg was smart, sly, and independent. She never let me come close to her, growling at me and warning me not to violate her personal space. Sergey's summer *aal* was not far away from the small gold mining company Oyna. The distance was a three-hour ride on a reindeer. Sergey's dogs loved to scavenge at the canteen trash pile of the mining company, and the cook often gave them leftovers. The dogs could stay scavenging for several days. Bichenyg was a troublemaker, and as the leader she always led other dogs there. First, Sergey and his son Danil worried that people would steal their dogs, because many people come to hunt at this site in summer. In addition, some of the company workers would ask herder-hunters to train their dogs for them. Of course, the herder-hunters refused to do this. Nobody wanted the extra competition for resources. Additionally, when the herder-hunters wanted to take dogs with them to hunt, the dogs would have already gone to the gold mining company. It was quite irritating for them to bring back dogs to the *aal*. In addition, the Chinese mining company Lunsin was close to Oyna, and both men feared that one day their dogs would end up on the plates

of the Chinese workers. In order to prevent the dogs from escaping, they kept Bichenyg on a chain almost all the time. She was unhappy losing her freedom while other dogs could roam free. Sergey and Danil gave her some breaks, but they then had to tie up the other dogs. That way, if she would escape to the mining company, there would be other dogs available for hunting duties.

Figure 32. Bichenyg is unhappy being on the chain. July 2013. Photo by Tayana Arakchaa.

Some people told me that another advantage to having a female dog is her loyalty. Her attachment to the owner can be very strong. A female dog seldom leaves her owner in the taiga, but male dogs do. It should be stressed that herder-hunters highly value not only the hunting skills of the dog, but also its loyalty to the owner. These two main features make a *nastoyashchaya taëzhnaya sobaka,* or "a real taiga dog." Any hunting trip can become unpredictable in the taiga, and a hunter needs a reliable hunting companion around him who will not leave him in an extreme situation. Nadya Dungur from Adyr-Kezhig told me that her father, who grew up in a reindeer herding family, preferred only female Laika because of the feature of that loyalty. He taught Nadya that a stolen male has never come back, especially if he was fed well by a new owner. In contrast, a stolen female dog would always return to her owner. Considering that dog stealing is on the rise in the Tozhu villages, the loyalty of female dogs is quite a beneficial feature.

It is important also to stress that in order to succeed, a household needs to keep two to four dogs, because dogs have different specializations and the life expectancy of dogs is relatively short in the taiga conditions. When I asked herder-hunters how many dogs they considered ideal to have, they usually replied, "A dog is a man's friend.[107] You can have only one true friend." Every hunter dreams about his ideal hunting companion: a truly multi-purpose dog. Other studies support the fact that the canine hunters' lives can be short (Ikeya 1994; Koster 2008, 2009). Because of canine distemper, attacks by predators, dogs drowning by falling through the ice (in spring), the cultural phenomenon of dog eating, and other accidents, few dogs live to reach ten years of age. The dogs are exploited through hunting and their lives are short, considering that a dog under ideal circumstances can live for up to twenty years. Typically, a dog can live for up to ten or twelve years in the reindeer herding camp. In the fall of 2014, many herder-hunters' dogs were infected with canine distemper and died. This dog disease negatively affected those herder-hunters who had only one dog. I noticed that most young herder-hunters had one dog. These hunters were left without their hunting companions and could not participate in the fall hunting season. They could not earn cash and would accumulate debts (for buying food on credit) to the kommersant until the next fall hunting season. While doing my research, I met two young herder-hunters who had lost their dogs. The first herder-hunter gave up hunting and spent most of his time in his log cabin, and the second man did his best hunting without a dog. The first part of winter he could obtain only one sable. In the end of December, he borrowed a dog from one his kin (Figure 22).

Dogs can die while pursuing a musk deer in spring. For instance, the seven-year-old Bichenyg chased a musk deer on a frozen river and they both drowned falling through the ice in the spring of 2014. It was a huge loss for Sergey and Danil. According to Sergey, a hunter encounters a good hunting dog every six or seven years, and Bichenyg was that one of his best dogs he had seen. Andrey's multi-purposed dog named Shokar also drowned while pursuing a musk deer across the ice in the spring of 2014. Anoka's dog named MTS, who was a puppy in summer of 2013, accidently fell off a cliff in the spring of 2014. Anoka thought that MTS was being chased by a predator. This mongrel dog was only one-and-a half years old. Petite MTS was often the subject of ridicule of other herder-hunters. When MTS had turned into a multi-purpose dog with good hunting skills, Anoka was so proud of his *azart* dog. After the dog's death, he often

[107] An English version is "A dog is man's best friend."

recounted the amazing scouting skills of MTS, described their connection to each other, he said missed his hunting friend.

5.6 Factors Affecting Hunting Success

Koster (2009) points out "the return rate of hunting with dogs depends greatly on the population density of prey species" (Koster 2009:585). In Tyva, the density of the animal population is associated with taiga conditions, the season, and climate change. The main factors affecting day-to-day aspects of hunting are weather and climate change. It is well-known in Tozhu that the full moon affects the weather. In the taiga, in winter, the full moon means that snow will fall for the next three to four days. If it is snowing, it is good weather to hunt because it is comparatively warm and easy to detect fresh sable tracks. However, if snow is heavy, it is often foggy and hazy, and such weather degrades the visibility of the landscape. It is impossible to detect animal tracks, and a herder-hunter must leave the hunting site. In addition, darkness falls earlier. In such wintry conditions, even an experienced hunter can be lost in the taiga. In this case, a herder-hunter relies on his reindeer to bring him home safely.

Permanent snow cover is critical to the search for animal tracks. The average depth of the snow in December is 30 cm. Herder-hunters have noted that for the last decade changes in weather and environment have affected their hunting activities. The first snow ordinarily arrives between October 15 and 20, but lately this time frame is no longer certain. In November and mid-December of 2014, the depth of snow was less than ten cm in some places, particularly in the barren stony places that sables use for refuge from the pursuit of a dog. It was challenging to catch a sable at this time, because it could easily escape in the shallow snow under the scattered stones. It takes long time to pursue a sable in such conditions. Herder-hunters often complained when coming back from hunting trips, *"Khar chok, khar chok"* (No snow, no snow). Herder-hunters living through these harsh conditions admitted that the weather changes were typical for the taiga, and that a slightly delayed first snow is not ultimately a serious issue. However, they were annoyed at having to wait for enough snow to cover the ground to allow for effectively tracking the sable (Arakchaa 2014). It is also important to note that if the depth of the snow is too deep, then hunting with dogs and reindeer becomes impossible because the speed of the chase is essential; both species cannot move swiftly through deep snow. Additionally, it is hard to ride a reindeer for

several hours in the bitter cold. When severe cold weather arrives herder-hunters go on hunting trips only occasionally: one or two times a week.

The Tozhu have faced the challenge of massive taiga wildfires in recent years. In the past, springs were rainier, and fires were intermittent and not generally intense. According to Khulermaa Kuular and Svetlana Khertek (2015), from 1961 to 1990 the annual average temperature was -3.43° Celsius in the Tyva Republic. Since 1975, the temperature has steadily risen. From 1977 to 2006, the annual average temperature was -2.35° Celsius. There were 3,555 fires, adding up to a forest territory of 4310 square kilometers, from 1999 to 2014. Kuular and Khertek (2015) point out that as many as 83 percent of the wildfires in the republic were caused by humans, and only 15 percent were due to dry hot weather and natural phenomena. In 2012, the taiga burnt severely in six districts, including the Tozhu district (Kuular and Namzyn 2013). According to reindeer herder-hunters, the last two large fires were the result of improperly extinguished campfires. The second fire was found to have some of the reindeer herder-hunters themselves culpable in burning the taiga. This fire caused the reindeer herder-hunters to quarrel among themselves as some men were accused of negligence. In the end, the herder-hunters agreed that everyone should put out campfires properly to avoid causing such fires in the future.

Climate change has contributed to intensification of taiga fires. Little rain falls in spring and fall in the taiga. Summers have become hotter, although it often rains in the end of July and August. Khulermaa Kuular and Samir Khertek (2013) stress that with the abnormally hot and dry weather in summer, there has been an increase in the number of large, destructive boreal forest fires over the past decade. These fires have reshaped the taiga environment. As a result, small animals have migrated into other territories. Herder-hunters reported that the neighboring taiga region was burnt in the summer of 2014, and it affected the sable population, which was forced to migrate into their taiga, creating a huge influx of sable into the herder-hunters' hunting territory. This movement had a strong positive effect for herder-hunters resulting in a higher than normal return rate; many men obtained an exceptional sable harvest. In addition, the migrated sable population was comparatively healthy, only a few harvested sables had been infected with smallpox, which damages the pelt by causing holes on the pelt and results in a lower price. The color and hue of the pelts collected were also comparatively similar to each other, which is very

unusual for sable.[108] However, the squirrel population became scarce since the fire because the squirrels mostly depend on pine nuts, which were burnt and destroyed by the fire. Squirrel pelts are not in demand, but herders still do occasionally kill them because squirrel is their favorite meat.

The main characteristic of the Laika breed is that the dogs are multi-purpose hunters. Significantly, return rates with hunting dogs depends greatly on their specialization and illustrates their agency. According to Donna Haraway (2003, 2008), agency among animals implies that animals have a developed sense of self. Hunting Laika dogs can clearly be seen as possessing agency in those terms. Each dog has its own particular preferences and skills; herder-hunters divide dogs into three categories accordingly: 1) small-game dogs, 2) big-game dogs, and 3) multi-purpose dogs. Some dogs pursue only small-game animals, some are better with big-game animals, and others are good at hunting both small and big game. For instance, a small-game dog will refuse to hunt big game, and a big-game dog will refuse to pursue small game. Dogs that specialize in small-game animals are also further categorized as *bel'chatnitsa* (Rus. squirreler), hunting only squirrels, or *sobolyatnitsa* (sabler), hunting only sables. The Tozhu typically ignore squirrels, so all their small-game dogs are *sobolyatnitsy*.[109] Dogs act within particular agential conditions and these conditions cause change. In other words, dogs' hunting preferences have an effect on their human companions. Herder-hunters stress that they cannot intervene in a dog's hunting preferences. For example, if a herder-hunter were to force a small-game dog to hunt an elk (large game), the dog could be scared by the elk and quit hunting, despite the authority of a human pack leader. A multi-purpose dog can switch from pursuing a small-game animal to a big-game animal. In such situations, dogs have some power, and they are recognized as competent hunters and social members of the hunting group. As the result of dogs' hunting preferences, in order to maximize their hunting success, herder-hunters must keep a pack of dogs.

It is important to stress that small-game dogs have a lower return rate compared to multi-purpose dogs. Big-game dogs are also valued by herder-hunters, but they have a lower return rate compared to *sobolyatnitsy*. Multi-purpose dogs hold high value because they are the most profitable and have a higher return rate compared to *sobolyatnitsy*[110] and big-game dogs. For instance, Sayazana and Andrey have four dogs: Kharal and Kuray are both male multi-purpose

[108] Colors and hues of sable ranges widely. It can take up to forty years to collect sable pelts of matching hues for a fur coat set.
[109] *Sobolyatnitsy* is a plural form.
[110] Plural form.

dogs, Enikey, is a male big-game dog (Figure 33), as well as a male puppy (who had not received a name yet). Enikey represents the East Siberian Laika. He is a strongly built and perfectly suited to pursue big game in the taiga. Enikey is a typical alpha Laika, an independent, aggressive, fierce dog. According to the Tozhu, these characteristics make the dog an effective hunter. Moreover, Enikey was expected to punish misbehaving dogs in the household. The dog has a great deal of dedication, allowing him to detect and pursue big game, and as a result he was the best at big-game hunting. He also did a good job at bear hunting (in winter) and was highly respected for taking on such a dangerous task.[111] If Andrey took two dogs simultaneously to search for musk deer, Enikey usually contributed more to the kill. It is important to stress that a hunter often does not have a choice of which animal to take, and completely depends on his dogs, particularly on whatever level of hunting desire his dogs have at the moment. These relationships are based on absolute trust for each other. For instance, a multi-purpose dog can start searching for a sable, and if he encounters the tracks of a musk deer, the dog will switch to pursuing the deer. Typically, the owner does not have much control of the dog's interest. He can call the dog. If the herder-hunter does not want to pursue a musk deer, he can leave the site.

Figure 33. A two-and-a-half-year-old girl and Enikey after his successful hunt of a musk deer. December 2014. Photo by Tayana Arakchaa.

[111] If a dog encounters a bear den, a herder-hunter organizes a hunting group. Skillful and fierce dogs are extremely important in attacking the bear.

All dogs are natural hunters, but the Laika are the best natural scavengers possessing strong hunting instincts. Herder-hunters usually prefer them to other dogs, although some hunters keep mongrel dogs in their households. For instance, Anoka does not care about the breed and goes for the mongrels. According to Sikachinskiy (1971), in 1966, the Turan *gospromkhoz* in Biy-Khem did research on dogs' hunting success, particularly mongrels versus purebred Laika.[112] They watched 100 mongrels and the results were as follows: 68 percent hunted sables, 47 percent—squirrels, 12 percent—upland fowl, and 18 percent—ungulates. The same number of the Laika worked on the following animals: 80 percent hunted sables, 100 percent—squirrels, 80 percent—upland fowl, and 40 percent—ungulates. As we can see the purebreds were much more efficient than mongrels.

Herder-hunters value the hunting skills of the dog and will take accept a puppy from a litter if parents are successful hunter, even both parents are mongrels. Sometimes a herder-hunter will choose a mongrel puppy if Laika puppies are not available. This usually happens in situations where the herder-hunter has lost a dog and has to get a puppy as soon as possible. For instance, Anoka replaced his small MTS with the petite Kulak. Laika experts warn that it is not guaranteed a puppy will become a successful hunter. Some unexpected surprises could happen for an owner as the puppy matures, as in the case of Kulak, who howled instead of barking.

The dog population in the Tozhu district has changed over the past eight years, simply as residents of Toraa-Khem have become interested in other dog breeds, especially hunting breeds. Villagers want to explore other breeds that are potentially suited to the prey animals they like to hunt. Occasionally, they bring different breeds from the towns and cities located in other provinces. Although the majority of people have the Laika, the dog population has diversified. Sayazan's and Andrey's dog Kuran is a crossbreed of a Laika with possibly a Border Collie (Figure 34). He was skilled at chasing down musk deer, but he did not bark when he corralled it. The couple had never had such problems with a dog before. They did not know what to do to make Kuran bark. I told Sayzana that the dog had Border Collie blood. She was unfamiliar with this breed, and my suggestion did not make things clearer for her. To the great surprise of the couple, one time, all on his own, Kuran began to help to round up the reindeer when the family caught them to tether. The couple did not know that the Border Collie was a herding breed. Despite the fact that Kuran was labeled as a Laika mix, his Border Collie herding instincts were still strong. Apparently, the

[112] Sikachinskiy does not mention which Laika breed was used.

traditional herder-hunters' knowledge about hunting dogs is challenged by the newly arrived breeds. However, Andrey found a compromise: he began to take Kuran out with a more experienced dog, either Kharal or Enikey, to introduce to the concept of musk deer hunting. He trained the dogs to work together as a team. This example illustrates that the challenges involved in selecting the right puppy for hunting can be difficult; it is the safest option for the hunter to use the Laika for hunting in the taiga.

Figure 34. Friendly Kuran. November 2014. Photo by Tayana Arakchaa.

It is worth noting that dogs become exhausted after an extended period of intensive hunting (a month and a half is enough to exhaust the dogs). A herder-hunter uses different strategies to maximize hunting success and keep his dogs motivated. The most important strategy is to use several dogs. After a month of intense hunting, dogs become exhausted and need more time to recover. In this case, the dog usually refuses to go on a hunting trip. The owner switches the dogs for a day or two, so the tired dog can rest. As for reindeer, they must be switched regularly every two days. Everybody loses weight during the fall hunting season: men, dogs, and reindeer. Herder-

hunters do not take food with them because winter days are short, and there is not time to eat while pursuing their prey. Dogs and reindeer need to keep to their chasing speed high. A herder-hunter can grab several pieces of bread for himself and his dogs, but that is all he will have.

Ultimately, hunting success also depends on the experience and talent of a herder-hunter. For instance, an older, experienced herder-hunter has a greater return rate than a younger, less experienced hunter. In the fall of 2014, the average return for young herder-hunters was about thirty sable pelts for a season. In contrast, Andrey, who is an experienced and talented hunter, obtained seventy pelts, although he had four dogs working with him. It was the highest number of pelts among all herder-hunters in the Serlig-Khem region.

5.7 Dog Stealing and Eating

Dog stealing is chronic problem in the Tozhu district, dating back the Soviet era. In recent years, the sable price has increased, and the theft of hunting dogs has risen in the villages over the past five years. The working Laika is a higher value target than mongrel dogs. It is hardly surprising that the trained Laikas of herder-hunters, with their good hunting qualities are a popular choice for thieves. For this reason, herder-hunters are not eager to bring their dogs with them to the village. The thieves make quick and easy money by dognapping the hunting dogs. The typical scenario is to take the stolen dog to Saryg-Sep, the main village in the neighboring district, Kaa-Khem. This action has to be done to hide all evidence of the theft. The Kaa-Khem district is in the taiga zone, and many people live off the taiga there, too. Moreover, the thieves can easily exchange the dog for a horse there, although it is also possible to make an exchange in the Tozhu district.

Public attitude toward theft has been illustrated by Boris Myshlyavtsev (2009) in his study of livestock-stealing in the southern part of Tyva. It was found that there is a divergence in attitudes toward livestock stealing. Respondents approved of "right" stealing, meaning theft stemming from extreme necessity, for instance, if a person is starving, whereas "unright" stealing is disapproved of. It is not right to steal from a person who has a low socioeconomic status. This theft is shameful and condemned by society. According to Alexey Cherenev (2015), because of horse theft, the residents of Yrban village in the Tozhu district refused to have horses.[113] Yrban is the most remote village in the district, and a horse was a useful means of transportation there. However, horse theft

[113] The Yrban population was 250 people in 2015. 248 were Slavic and 2 men were Tyva (Cherenev 2015).

became so common that it did not make any sense to keep horses anymore, because the Tyva from other villages would steal them. As for dogs, dog stealing in order to make a profit is condemned by the Tozhu, particularly by hunters. Not only do local people steal dogs, but non-Tozhu can steal them too. During summer and early fall, people from different parts of Tyva come to explore and harvest resources in the Tozhun taiga because of lack resources in their home areas.

A first-time visitor to the taiga will find an apparently desolate region with steep-sided mountains, endless pine and larch forests, clear water rivers, picturesque valleys, and bottomless bogs. It appears at first glance as if a person could easily hide there, and nobody would ever find them ever again. However, this remoteness is an illusion. In reality, nothing is truly hidden in the taiga because the people who live and traverse it regularly will always notice the presence of others in the taiga. I witnessed this phenomenon several times, that it is impossible to hide something in the taiga. News also spreads quickly. For example, Sergey told me that several years ago one of his Laikas went missing in the taiga. As a usual practice, herder-hunters sometimes let Laikas go to scavenge freely. Sergey feared that his dog had been attacked by predators and waited for him. After several days, he realized that the dog was not coming back. Other people brought him news of what was happening, and the chain of events became clear, little by little. First, one herder-hunter met a couple from the Erzin district who came to harvest pinecones on the Tozhu taiga (it was September at that time). Then, another person saw the couple at the Toraa-Khem gas station, and the barking Laika was inside their car. They were headed to Erzin. The description of the Laika coat was very similar to Sergey's dog. Sergey's Laika probably came to them for food, and the couple snatched the dog. It was a great loss for Sergey, because that Laika was his best hunting dog ever. He was concerned that more nonlocals have come to the taiga, posing a potential threat to herder-hunters. He told:

> I was at the gold mining company. I saw about twelve or thirteen young Tyvan guys from Kyzyl passing on the big truck Ural in June. They had firearms and they were drunk. They came to hunt. If they would go further, to our place, they would kill our reindeer. They are town guys. What do they know about reindeer? Nothing. They would think that these are wild reindeer and shoot all of them. More and more people come to our taiga. But the taiga is not rubber, it cannot stretch. Even people who come to gather pinecones can snatch our dogs.

According to Tugolukov (1969), an experienced hunting Laika was valued no less than a horse in southern Siberia. This fact holds true for the Tyva Republic. Herder-hunters often receive offers from cattle and horse breeders to exchange a hunting dog for a horse. The price of the horse

on the Tozhu market ranges from 15,000 to 20,000 rubles. Recently, Sergey received comparable offers, twice, to exchange one of his dogs for a horse. He was advised to come to an *aal* in the low valley and choose any horse from the herd that he liked. Also, herder-hunters will offer to exchange reindeer for a good dog. Nikitin told me that the most impressive offer was made in Adyr-Kezhig in 1995. The owner, Vyacheslav Dorzhu, was encouraged to exchange ten reindeer for his purebred West Siberian Laika named Manya. Vyacheslav declined this offer, although ten reindeer are a high price to pay for a dog. A purebred Laika still remains an expensive dog to buy. In December 2014, a Laika with good hunting skills was valued for 60,000 rubles (USD1,056) in Kyzyl. It was an especially large amount of money in the local economy, considering that the state minimum wage is 6,956 rubles (USD 122) per month (as of January 2015) (*Ofitsial'nyy portal Respubliki Tyva* 2010).

To the big disappointment of cattle and horse breeders, Sergey did not agree to make this exchange, even though he needed to get a horse to go the village in summer. Several years ago, he had two horses, but during his visits to Adyr-Kezhig they were stolen. It is not surprising that herder-hunters typically decline such offers because a dog makes them much more money ultimately. According to optimal foraging theory, a dog is more profitable than a horse in the taiga. With small-game dogs, a herder-hunter can harvest at least thirty to forty sables, whose pelts have value of at least four to six times more than the price of the horse, even though a mare can produce offspring every year. Moreover, a multi-purpose dog can also contribute to the kill of musk deer, which makes for even more profit. The average Tozhu herder owns approximately one hundred to one hundred and fifty sheep, ten to fifteen cows, and fifteen to twenty horses. Tyvan horses cost practically nothing to raise. They graze freely on the steppe, taiga, and mountains, and they do not require grain or hay. Tyvan horses are able to find their own forage by digging through the snow in winter, a critical action for herders. To train a horse for back riding takes only three to four days, but it takes at least two years to train a dog to become an accomplished hunter.

As for dogs, they require feeding, and it is time-consuming to cook their food, particularly during the exhausting hunting season, but necessary to maintain their stamina. There is no dry dog food available in the taiga. Feeding differs according to the season. *Yt chem* is watery and not quite sufficient for dogs, although table scrap food or less desired parts of an animal (for people) are also thrown into *yt chem*. During the hunting season, when a household has a plenty of game, meaty animal parts, usually sable or musk deer, are added to *yt chem*. It takes from one hour and

thirty minutes to two hours to cook *yt chem* depending on the quality of the fire in the small, primitive iron stove.

It is also widely believed that a stolen dog is a better hunting dog and brings good fortune in hunting, though such a view could be an excuse to legitimate dog stealing. It is much easier to take another person's dog than to raise and train one's own. Typically, village dogs are left in a fenced yard attached by the rope or chain to the dog kennel to guard the house or they simply roam freely on the streets. If herder-hunters come to the village with their dogs, they leave them in the fenced yard. If the dog has extraordinary hunting skills it may be kept in the house for safe keeping. Sayzana told me that they had one male dog fifteen years ago. This companion was highly intelligent with perfect hunting skills and was highly profitable. It had intimate bonds with two daughters and had become a favorite family pet. Every time when the family had return to Adyr-Kezhig, they kept the dog inside the house because they were afraid that thieves would steal it. The dog was allowed to walk in the fenced yard. If he was on the street, one or more of the family members watched him. One day the dog ran away. Fearing the dog was dognapped, the family explored Adyr-Kezhig's streets and did not find him. It was a huge relief when the dog came back by the evening. Sayzana stressed that it was their only extraordinary dog, though they have lived in the taiga for twenty-five years. For the last four years, as the sable population increased and dogs became very profitable, herder-hunters have not brought their dogs with them to the village because they will be stolen immediately.

Another reason for dog stealing is eating dog meat. Dog eating is common practice in many cultures around the world (Clutton-Brock and Hammond 1994, Davydov and Simonova 2008, Podberscek 2009, Schwartz 1998, Sendzimir 1995, Wing 1978). In Tyva, dogs had never been regarded as a source of food although people consumed wolves. Humphrey (1976) notes that well-boiled dog meat and fat was believed to be an effective treatment for tuberculosis in Mongolia in the 1970s. Though historical records on Tyvan dog eating is scant, Humphrey's notes (1976) suggest that dog eating as a cure for tuberculosis is not a novelty in Inner Asia. Although the taiga dwellers consider dogs their ancestors (Møller 2015), the dog meat eating practice emerged many years ago as a treatment for tuberculosis, and this tradition is still alive today. In the Tozhun rural area, human relationships to dogs as kin, the consumption of dogs as tuberculosis treatment and a sometime necessary protein source uncomfortably overlap. What is the nature of these relationships if humans can easily consume their beloved kin as food? In the example of the

plurality of indigenous views on animals, Peemot (2017) examines human-animal relationships, particularly the horse-meat eating practice among the Tyvan pastoralists in South Tyva. For South Tyvan pastoralists, "horses are understood to be persons with individuality" (Peemot 2017:137) and are thought of as kin. At the same time, horse-meat eating is an accepted cultural practice in this region. Likewise, the perception among the Tozhu of dogs as persons (close to being humans) does not prevent many Tozhu from eating dogs. To what extent can this practice be analyzed as "cannibalistic"? The question of animal kinship and cannibalism bring us to an interesting discussion in animal studies. According to Analiá Villagra (2011:50):

> Animal studies asks us to sidle up next to our animal kin, but many of these potential kin are also potential food, thus presenting an unresolved tension between cannibal and kin. Before we comfortably accept animals as kin we must confront the problem of the animal's edibility. Either we consume our kin and make cannibals of ourselves or we deny their kinship at the moment of consumption. The former breaches historical cultural taboos, and the latter makes a mockery of the sacred relations of kin. I would like to argue for a more challenging vision of kinship that would allow for the consumption of fellow animals not in the absence of or in spite of bonds of kinship, but rather because of them.

Cannibalism "represents a process of transformation and refiguring of relationships. The blurry boundary between human and nonhuman animal does not begin and end with the actual consumption of flesh" (Villagra 2011:51). The act of dog eating deserves closer attention and has the potential to deepen understandings of dog-human relationships in the Tozhu district.

Widespread dog eating for meat itself is a relatively recent cultural phenomenon in Tozhu, beginning after the dissolution of the Soviet Union, as people were enduring economic crises and hardships. Collective farms collapsed, salaries were not paid on time, and grocery store shelves were almost empty. While dog meat is considered a luxury in some cultures, it became the food of the poor people in the Tozhu district. This kind of dog stealing, to eat the meat, is seen as "right" stealing, particularly by people who have poor jobs and a low socioeconomic status. Dog stealing for meat became so common that dogs became scarce in the villages of Tozhu. The first target of these dog thieves was stray dogs on the streets. When the population of strays declined, working Laikas were dognapped from fenced yards. Dog owners were afraid to let their dogs roam freely on the streets. This mass dog slaughter was ongoing during the economic turmoil. Dog eating almost brought the Laika population to an end in Tozhu. As villagers recalled, the streets became empty of dogs. Although dog stealing has declined comparatively since the 1990s, people continue to snatch dogs from fenced yards. Today dog slaughter seems to be ending. However, several

villagers complained that their dogs had gone missing, they were suspicious that they ended up on other families' plates. Thus, Nadya, my host in Adyr-Kezhig, told me:

> My dog was stolen from the yard at night three years ago. It was tied to the kennel. It was just a yard dog, not a hunting dog. It was a young dog. We did not hear anything that night. The thieves gave food to him and took him. The dog had enough meat on his body, and he looked quite appealing for thieves to steal him.

Today, dog eating it is strongly associated with male ex-prisoners trying to cure tuberculosis and maintain their stamina. Such peculiar gender bias of dog eaters has been noted in other countries such as South Korea (Podberscek 2009), the Philippines (Griffith et al., 2002), and Vietnam (Goodyear 2005). But in the Tozhu district, this gender bias is related to the socioeconomic situation in the villages. High unemployment has long challenged those living in Tyvan rural areas, and the job situation is not improving at all. The unemployment rate in remote small villages is higher than in big villages. Widespread alcohol abuse has become an essential aspect of Adyr-Kezhig life since the collapse of the post-Soviet era. Rampant alcohol abuse and violence negatively affect the community's life. Alcohol is associated with higher incidences of violent crimes, rape, domestic violence, and suicide. The unemployed population of Tyva all too often passes their time indulging in alcohol binges. As a consequence, a large number of Tyvan males are in penal custody. It is a well-known fact that Russian jails are ideal breeding grounds for tuberculosis. When prisoners are released they usually return to their homes, but are infected with tuberculosis. Tuberculosis spread fast after the collapse of the Soviet Union, and today, the tuberculosis rate in the Tyva Republic is one of the highest in Russia. Infected young men who want to have relationships and marry seek a free cure for their tuberculosis. It is strongly believed that dog fat cleanses the infected lungs. Desperation and belief in a miraculous cure force them to steal dogs, and thus dog meat has become a part of the cuisine of infected people attempting to cure their tuberculosis.

Dog eating rooted in poor economic living conditions is important to describe village life and understand the socio-economic situation in Tozhun villages. In presenting village life, we must realize that high rates of alcohol abuse can be attributed to a number of factors. According to the Adyr-Kezhig village administration on July 2015, ninety percent of the residents were unemployed. The other ten percent worked at the secondary and boarding schools, a kindergarten, the village administration, a bakery, several small grocery stores, a cultural club, the library, the post-office, or in Toraa-Khem, nine kilometers away. The endemic poverty was a direct result of

high unemployment. Most of those who were employed earned only a very small income, hardly enough to live on. Adyr-Kezhig residents who were unemployed were not simply unemployed, but were long-term unemployed, meaning they had critically low aspirational goals, poor health outcomes, lower education, and an unstable family life. These villagers have been unemployed for at least two generations, since the collapse of the Soviet Union. In other words, two generations of people have only ever known an opportunistic lifestyle, based on scrounging what they can find in order to survive. Worse, the second generation has grown up in deeply impoverished conditions, neither employed nor enrolled in further schooling. Although most explain that they would someday like a stable job with a good salary, they lack sophisticated skills or interest in taking the available low-skilled jobs. Among the Tozhu, family success is often measured by whether or not a child receives further education at a community college or university. Parental support is crucial in determining whether a child ends up employed or addicted. On several occasions, I observed women discussing the successful and unsuccessful children of other residents, who were labeled *neputëvye* (scampish) or *isporchennye poselkovye* (spoiled villagers). Those "scampish" young adults spent their time drinking and were occasionally arrested for misbehavior. This category of people was viewed as conducting themselves with inappropriate behavior for Tozhu, including behavior that could easily violate the law of the taiga. These people were also seen as not capable of hunting or caring for reindeer. Villagers were often suspicious that these *neputëvye* young adults were eating their dogs as well.

Many unemployed people become trapped in addictive behaviors whereby they increase their alcohol consumption. At first glance, Adyr-Kezhig looked like a typical small Tyvan village, except on closer inspection one finds that life there consists of intersecting vicious cycles of poverty and addiction. Village life dictates its own rules based on the rhythms of survival. Many families, struggling, live off their elders' meager pensions. At this point, elders contribute greatly to the survival of their families. An average pension for a former *kolkhoznik* (collective farmer) is 7,000 rubles[114] per month, but this is not enough to cover living expenses for one single person. A family is considered lucky if it has at least one elder in the household. One of the most staggering issues the villagers have to deal with is high food costs. In general, food costs almost 35 to 40 percent more than in Kyzyl. Therefore, the villagers find themselves trapped in a long-term circle of debt to the grocers.

[114] According to OANDA, this amount was equivalent to USD 133.46.

David Koester (2003) points out that drinking is a powerful and unavoidable aspect of social life in Russian society. Although alcohol is not a food item necessary for survival, its immediate effects include giving those with idle lives something to do, which contributes to its desirability. Also, drinking etiquette is based on the informal social mechanism of communal sharing in the village. At the beginning of the month, pensioners go to the post-office where they receive their retirement check (paid in cash).[115] The whole village is excited, and some villagers start looking for the elders at the five grocery stores. Monthly payments of retirement money initiate a celebratory mood, which in turn initiates drinking. People often form a drinking circle among a particular group, mostly kin. Many people are related to each other through blood or marriage and they easily mingle: elders in their sixties or seventies hang out with young people in their twenties or thirties. Elders seem to enjoy being a part of a busy, social atmosphere and receiving attention from others. According to Koester (2003), much of the social pressure for drinking comes from the assumption that everyone in the drinking circle should demonstrate the same status level; by drinking, individuals avoid betraying the trust of others and build camaraderie.

The practice of dog eating among the Tozhu is related to unemployment, crime, tuberculosis, alcohol abuse, and poor diet. As I mentioned before, dogs are considered to be the ancestors of the Tozhu. People, who steal and eat other dogs do not have emotional connection to these animals, which may reduce their sense of relatedness with them. Moreover, the majority of the Tozhu do not carry out a traditional nomadic life anymore, another reason to be disconnected from canine kin. However, the Tozhun view of dogs as kin suggests that consuming dog is not just merely the consumption by humans of the flesh of animal kin. Rather, it can be seen as an act by which the animal helps his human relative by becoming a magic cure. The properties of the dog, particularly its meat and fat, are said to strengthen human endurance and stamina and cure tuberculosis. The transformation of an animal companion into meat does not mean the denial of kinship or the end of the relationship; as shared food, the dog cures and continues to 'feed' kinship and friendship ties, a view that is widespread in rural communities.

According to Walraven (2001), in the late 1990s, the Korean mass media often discusses the merits of dog meat: "Dog meat is said to contain the vitamins A, B1 and B2, easily digestible proteins, and to be low in cholesterol and high in poly-unsaturated fat" (Walraven 2001:104).

[115] Although some people have bank cards, they are useless in the village.

Koreans believe that different parts of a dog's body are beneficial for human tissues and organs including arteries, stomach, intestines, bones, and joints (Walraven 2001). Dog meat consumption for medical purposes in Russia has a recent history. It is widely believed that dog meat and fat are a miraculous cure for hundreds of diseases, especially for colds, flu, and as stated above, tuberculosis. Moreover, dog fat is promoted through online resources and you can buy a bottle of dog fat on the Internet. It is highly recommended to eat the fat of a stray dog because it will give particularly strong immunity to tuberculosis. If one visits the supermarkets even in big cities and checks the organic products department, one will find a variety of bottles of dog and badger fat. Dog fat is presented as organic protein-rich treatment. But the questions are: is it real dog fat and how is it made? Apparently, the idea of dog meat as medicine originated in Asian cultures (see Podberscek 2009, Walraven 2001). Dog meat treatment is attractive in Russia because folk medicine and non-traditional/alternative medicine always were and still are popular. Healing with herbal teas, supplements, and animal parts has gained steady ground as important components of folk medicine. In addition, it is quite common in Russian medicine for a doctor to combine both western and alternative medical methods by prescribing standard drugs, herbs, and homeopathic pellets/drops.

Rumors have circulated in the Tozhu district that doctors in the tuberculosis clinic in Kyzyl recommend their patients to include dog meat in their diet as part of a cure. People can receive professional care in Toraa-Khem, where the Central District Hospital with 52 beds is located. Ten beds are provided specifically for treating patients with tuberculosis. The outpatient clinic and hospital treatment are free for everyone, and patients can be hospitalized for a long period of time. However, many sick people hope to return to an ordinary life, and dog meat is considered an alternative, powerful remedy for tuberculosis. Dog eating is not common, but every year several dogs vanish from yards and streets in the villages presumably for human consumption. One herder-hunter named Roman told me that he once ate dog meat several years ago, but he was not aware of it. He came to his friend's place and according to Tyvan etiquette, was offered food, *mün*[116] (soup). After Roman finished his meal, he was told that he had eaten dog meat. He did not feel an aversion because it had tasted like eating beef or deer. However, personally he had never dreamed of eating dog and would not kill a dog for meat.

[116] It is a dense soup; in rural areas the ingredients are usually meat, pasta, and potatoes.

It is important to stress that the Tyva as well as the Tozhu use animal body parts to treat a number of diseases. Bear fat is also considered powerful medicine, treating many diseases. Fat eating is also not a novelty in itself for the Tyvan culture.[117] For example, bear fat is used to soothe a cough, to treat tuberculosis, to reduce back and joint pain, to boost the immune system, and to cleanse the body of toxins. Bear fat is also known for its regenerative properties and it is used to heal wounds and burns. The Tozhu give bear fat to their dogs, particularly during the hunting season when dogs are exhausted and need to strengthen their stamina. Bear fat has a warming effect and can warm human and animal bodies on winter hunting trips. The Tozhu also consider raw bear fat to be a delicacy. Nevertheless, both bear and dog fats are perceived to share similar healing effects in the Tyvan culture. The only difference is that killing a bear is a dangerous and challenging task requiring certain knowledge and hunting skills, while killing a dog is not risky and does not require specific skills or knowledge. In addition, stray or snatched dog meat is free, and it remains popular among the poor.

Although it is also not common among the Tyva to use dog fur for clothing (there are other, better choices), but the Tozhu have made dog coats in the past. Recently, some Russian snowmobile owners in Toraa-Khem have begun to kill stray dogs for their pelts. Also, if a domestic dog misbehaves or is a poor hunter, it is killed, and its pelt is used for clothing. Russians make hats and mittens from dog pelts. Dog fur is considered very warm and a perfect protection for hands and a head during a snowmobile ride in cold weather. Nikitin has a dog fur coat of a beautiful yellow gold color. He collected hides to match for six or seven years and purposely killed stray dogs for their coats in Toraa-Khem. Natalia from Toraa-Khem told me that a year ago a dog from the neighboring house killed several chickens in her yard. She and her husband asked the neighbors to tie their dog properly and warned them that the next time they would kill it if it killed a chicken. Soon the dog came again and started to feast on chickens. Natalia's husband killed the dog and made a hat from its pelt.

Stealing is a crime; however, people never report their missing dogs to the police. There is not a police station in Adyr-Kezhig and only one policeman who works there. Villagers think it is

[117] Also, traditionally babies and toddlers are given a piece of sheep fat to suckle. It is like a nipple substitute but with a good taste, and it is considered healthy. As meat eaters, the Tyvan men prefer to eat fatty chunks of meat and fat (women usually avoid eating fat because of their concern about gaining weight) and believe that the greater amount of fat in a dish, the more delicious the food.

better not to bother the police with such cases because the thieves will be never found or punished. It is hard to hide something in a small community, in which people know each other, are somehow related to each other, and news and gossip spread very quickly. However, a perpetrator this kind of action is always a mystery. Villagers believe that young men, usually *neputëvye* lead by ex-convicts, are the culprits, and this type of behavior is imitated by other young men. People steal dogs to feed themselves literally and metaphorically. In general, villagers think it is uncivilized to eat dogs, but they have to admit that dog meat feeds the poor and ill people. Owners who lost a dog are upset not only because the thieves have stolen their possession, but also because they have lost their pet or hunting companion with whom they had a special bond.

5.8 Conclusion

In the taiga dogs are not strictly domestic or wild, as the Tozhu move their dogs across domestic and wild categories to suit their needs. The fluid nature of these human-dog relationships is a necessary means for cultivating tameness and independence in a shared taiga environment. In many ways, human-dog relationships among the Tozhu are based on a wolf-pack approach. More importantly, herder-hunters encourage this relationship in the pack through the leadership of older and more experienced dogs. The Tozhu are experts of Laika behavior and they understand and appreciate their dogs as interdependent hunting partners. Their knowledge of Laika behavior is passed from generation to generation. The wolf-pack analogy is necessary to achieve hunting success in the harsh taiga conditions. Introduction of puppies into the taiga environment resembles how wolf mothers raise puppies in the wolf pack; puppies are taken to hunting trips, in which they observe older and skillful dogs' hunting methods. Later, puppies mimic the hunting behavior of the older dogs. The wolf-pack approach in hunting is highly effective and reduces human efforts in puppy training. It would be a misconception to think that human-dog relationships among the Tozhu are based solely on dominance; these relationships also include rewarding behaviors that have real effects on hunting success. Moreover, achieving hunting success requires companionship based on mutual trust. Herder-hunters fully rely on their dogs' skills and work together with them as a team. As a result of this teaming, humans and dogs understand each other well.

Dogs are effectively and intensively used during the fall hunting season by the Tozhu herder-hunters, particularly hunting sable and musk deer. This combination of dogs and reindeer increases return rates under taiga conditions. These two domestic animals contribute a great deal

to the pursuit and killing of prey. To maximize return rates, a herder-hunter needs to consider a dog's breed (Laika versus mongrel dog), sex-related variability, the dog's personality, and the specific hunting environment. Both male and female dogs have advantages and disadvantages as hunters. Female dogs are inclined to pursue small-game animals, and male dogs tend to pursue big-game animals. Small-game dogs have a higher return rate than big-game dogs. Multi-purpose dogs are very profitable, maintaining a higher return rate than both small-game and big-game dogs. A hunter with a multi-purpose dog does not have a choice as to what prey type to harvest because the dog will choose which prey to pursue. In order to maximize hunting success, the family needs to keep three to four dogs. All Laika breeds are beneficial to hunting in taiga conditions because they combine the traits of pointers, scent-hounds, and sight-hounds. All dogs can be good hunters, but the probability of defective traits in mongrel dogs is higher than with the Laika.

Aboriginal breeds of dogs are adapted best to the extreme local conditions of the region and cannot be substituted with other breeds. The Tyvan Laika population experienced severe disruption due to crossbreeding with dogs brought by newcomers, the Soviet dog eradication campaign, the Soviet breeding policy of propagating and promoting the West Siberian Laika, and dog eating following the collapse of socialism. As a consequence of indigenous breeds of dogs (such as the Tyvan Laika and Kadarchy Yt) disappearing, herder-hunters as well as hunters in other parts of Tyva are faced with an age-old issue: predation on livestock. Currently there is a lack of adequate guards against livestock predators, whose number is currently high.

Today the Laika population has been restored. Tozhun villages represent a quite diverse group of non-purebred Laika breeds. During the Soviet era, a new breed was introduced, the West Siberian Laika, and the Tyvan Laika mixed with this breed. The Kadarchy Yt was used as the favored big-game hunting dog but gradually disappeared from the district. As in the past, modern dogs continue to interbreed with dogs brought from neighboring and more remote regions and represent many diverse subtypes of the Laika. Although these dogs are the result of free mating with the Laika, other breeds, and mongrels, they are easily recognized as having Laika bloodlines. Although these non-purebreds will never be recognized by the kennel clubs, they should be considered Tyvan *Novo*-Laika, a new Tyvan Laika type of dog. In general, these dogs are slightly different in size, color, proportions of the head, and carriage of the tail and ears. The local population uses them as guardians, hunting companions, treatments for tuberculosis, and an

important food source. Herder-hunters heavily rely mostly on these Laika, and they use them successfully.

The use of hunting dogs in the taiga zone remains an understudied topic in cultural anthropology. There are some ethnographic records of the use and treatment of hunting dogs in the indigenous communities in southern Siberia, which makes it possible to compare past schema with the present in order to see the dynamics of changes in hunting and reindeer economies. More research should be conducted in order to fully understand the role of hunting dogs in contemporary local economies and human-animal relationships.

CHAPTER 6: BEASTS OF BURDEN IN THE TAIGA

Хойлуг кижи – каас, чылгылыг кижи – маас.

A person who has a sheep is well dressed; a person who has a horse is lucky. (Tyvan proverb)

6.1 The History of Horses in the Territory of Tyva

The steppe nomads of Eurasia were viewed as fierce hunters, moving freely on their fast horses, invading territories from China to Europe. They left their legacy spanning history, from ancient times up to the great empire of Genghis Khan. The territory of Tyva lies at the crossroads of this huge and culturally diverse territory. The first nomads were completely dependent on sheep and horses to survive in the harsh, arid climate of Inner Asia. Clutton-Brock (1992) points out that "by the first millennium BC, horse-riding had become the established means of locomotion in central Asia, and it enabled nomadic pastoralism to develop into an elaborate cultural economy" (Clutton-Brock 1992:97).

Since the 1950s, extensive archeological excavations have been carried out on numerous archaeological sites and graves in Tyva. The remains of domestic horses have been found in the graves of the Afanasevo people, whose culture occupied the territory of Tyva at the end of the third century BC. The Afanasevos were the first people to depend on animals such as horses, sheep, cattle, and yaks and the food products that can be made from their milk and meat. Another intriguing discovery about domestic horses has emerged from the Okunev culture, which thrived during the Bronze Age, predating the above-mentioned Afanasevo culture. The Okunevs left behind unique rock carvings and painted pictures that were artistically rich and diverse. Some of the images they created included horses, chariots drawn by horses (sometimes with standing people on the chariots) and other draft animals. Clearly, the Okunevs used horses as transportation for seasonal and long-distance migrations. Other burial pits found in the Turan-Uyuk Basin (the central region of Tyva) included the half-burnt bones of a sheep and a horse. This suggests that these ancient people practiced animal sacrifice. In general, the end of the Bronze Age is marked by the development of techniques of herding, ceramics, and wheeled transportation (Semënov 2001).

Other examples of documentation of the early existence of domesticated horses can be seen in Tyvan petroglyphs. The most numerous petroglyphs come from the cliffs of the Upper Yenisei River basin in the central region of Tyva. According to Devlet (1980), who studied this site, the precise dating of images was not possible, but they ranged from the Bronze to Middle Ages. These

petroglyphs usually depict hunting scenes, various animal species, and other aspects of human life. Horse imagery is not prominent here, and it is clear that all images involving horses were added to the site later. Some were able to be dated and were found to come from the Scythian period. In the petroglyphs we can see depictions of domesticated horses, more chariots, and humans riding these horses. The finely incised lines make the identification of the type of horse easy. These early Tyvan horses were small with short legs and appearance similar to a typical Mongolian horse (Devlet 1980).

Additionally, depictions of these early horses appear in the famous Scythian monuments of Tyva. Although known to us partially thanks to the descriptions of ancient Greek writers, including Herodotus and Strabo, the horse-riding nomadic Scythians inhabited a vast swath of Eurasia, from the north of the Black Sea stretching to southern Siberia and northern Mongolia. Important information about the Scythians habitation of ancient Tyvan territory came to light following two spectacular discoveries at the sites of Arzhan-1 and Arzhan-2, Scythian burial mounds or kurgans, that were excavated in Tyva in 1970 and 2001 (Gryaznov 1980, 1983; Zaitseva et al. 2004, 2007). According to Zaitseva et al. (2004), these sites are the most important monuments for the study of all Scythian cultures. These findings amplified earlier discoveries by Rudenko (1970), Grach (1983), Gryaznov (1950), and Vitt (1952) and contributed greatly to our understanding of the history of Scythian nomadic cultures. Along with sixteen human remains, the skeletons of 160 horses were found in the graves of Arzhan-1, dating to the 10^{th}-9^{th} centuries BC (Mannay-ool 2001a, Marsadolov et al. 1994, Zaitseva et al. 1997) or, alternatively, the 8^{th} century (Gryaznov 1980, Grach 1983). Also found were the skeletons of fourteen horses in the graves of Arzhan-2, dating to the 6^{th}-7^{th} century (Zaitseva et al. 2004). This find revealed that the horses were of an aboriginal breed, similar to the Mongolian horse type. According to Mannay-ool (2001a), the Scythians raised sheep, goats, cattle, horses, and possibly camels, but preferred sheep and horses. They rode horses and used them for pulling chariots. These earliest nomadic pastoralists valued their horses highly and used them as transportation and also for their meat, milk (base for *kumys*[118]) and coarse hair. Owning a horse was a sign of wealth and prestige and it is not surprising that the horse played an important role in the Scythian worldview, in the performance of rituals, and in their art. For example, the Scythians used to sacrifice horses at the burials of the nobility, a widespread practice in many horse-breeding cultures. The horse not only accompanied

[118] Mare's fermented milk similar to *kefir*.

a human in his journey from cradle to death but also followed him into the afterlife, to the lower or upper afterworlds. The Scythians represented an ethnographic example of the historical continuity of the steppe-mountain culture in modern Tyva, as shown by Vainshtein (1980a). Vainshtein (1980a) states that up until the 19th century, horses were killed and buried with their riders in Tyva, and the design of a Tyvan bridle is similar to those from the Pazyryk tombs, suggesting cultural continuity of Tyvan horse culture across several millennia.

In the 2nd century BC, the warlike Huns came to the territory of Tyva and formed a powerful union over all the Eurasian Steppe. The local tribes integrated into the Huns' military groups and "[u]nder Attila (r. 434-453 CE) the Huns became the most powerful, and most feared, military force in Europe and brought death and devastation wherever they went" (Joshua 2018). The impact of horse riding was tremendous, since it permitted the Huns to move rapidly from one place to another, allowing them to conquer vast territories in Eurasia. The graves of the Huns also revealed evidence of animal sacrifice, particularly bulls, sheep, and horses, which were buried in a separate grave from their human masters. It has been suggested that these mortuary offerings were made to honor the ancestors, the sky, the earth, and the spirits. The peculiarities of these burial mounds also suggest that their builders believed in the existence of a soul after human death (Bichurin 1950, Vainshtein and Mannay-ool 2001). Kalashnikov and Kalashnikov (2011) state that during the 1st-5th centuries BC, local horse breeds in southern Siberia mixed with the Hun's horses and as a result, the crossbreed offspring became larger, and became popular even in China.

Many of the excavated burial mounds and kurgans are known as the sites of the ancient Turkic tribes, particularly the Turk-Tyuku, who occupied the territory of Tyva from the 6th to 9th centuries (Vainshtein 1958, 1966, Kyzlasov 1979). These numerous Turkic tribes were spread all over Central and Inner Asia, and were organized into large coalitions of tribes, such as the First Turkic Khaganate,[119] the Second Turkic Khaganate, the Uygur Khaganate, and later the Kyrgyz Empire, which had its center at the Yenisei River. "Inner Asia was the original source of the seventh to eighth century Turkic expansion that resulted in its languages, culture, and peoples spreading from the Altai across western Asia and into eastern and northern Siberia" (Fitzhugh 2009:73-74). These military empires eventually became autonomously powerful and strong, thriving at the expense of their sedentary neighbors. Turkic horsemen traveled large distances on their fast-moving horses across vast steppe valleys to acquire wealth and power in new regions.

[119] Khaganate is a political union ruled by Khan or Khagan.

According to Potapov (2001), the Turk-Tyukyu had one significant advantage over other nomadic tribes in that they were familiar with iron-working, produced iron armor, and preferred to breed fast-moving animals, such as horses and sheep. Sheep and horses provided the main food supply for the Turkic warriors during their military campaigns. Each warrior maintained a spare horse in order to be able to change horses and maintain a rapid pace without exhausting his horses. The warriors' ability to live off their animals even while on the move made their cavalry quite mobile and able to cover long distances across steppe, mountains, and taiga.

Potapov (2001) points out that the remains of horses found in the burial mounds of the ancient Turks showed great similarity to horses excavated in the archeological sites in southern Russia and Altai of the 7th-8th centuries. They also resemble modern Kyrgyz horses, but do not have much in common with modern Mongolian horses. One essential feature of the graves concerns the Turks' practice of burying horses with humans, as well as the horse's gear and projectile weapons (Grach 1966, Trifonov 2013, Vainshtein 1958, 1966). If the deceased was poor, another animal was substituted instead of a horse, usually a sheep with a bridle and girth. Like the Scythians, who buried their highly valued horses along with their riders, the ancient Turks practiced the same burial traditions. In addition, in the 6th century, their creative craftsmen could turn a sheet of bronze, silver, or gold into elaborate works of art. These horse breeders adorned their cherished animals' bodies with intricate masterpieces, shiny bridles and decorative halter plates. Additionally, they used a Turkic style of stirrup with a functional design, which spread across the vast Eurasian steppes (Potapov 2001).

As soon as the Turkic tribes had established themselves, they began to develop a flourishing trade with their neighbors. They extracted iron from their neighbors, the Yeniseian Kyrgyz. With the Chinese, they exchanged cattle, horses, and fur for silk and gold. The horse was their most important and favorite piece of merchandise. According to Beckwith (2009), in the year 533, the Turks brought 50,000 horses to the frontiers of China to trade for precious silk. They even built their own market in the capital of China to facilitate this trade. The eastern Turks bought silk from China, and the western Turks then traded it to Central Asia, Persia, Iran, Byzantium, and Rome (Barfield 2002, Potapov 2001).

In the 9th-10th century, various Turkic tribes lived in what is now the territory of modern Mongolia. However, the Mongolian tribes steadily were moving into this region and over the generations they emerged out of the forests. Despite the sophistication of their herding neighbors,

the Turkic tribes despised the Mongols. The Mongols, however, adopted their way of life, particularly their nomadic husbandry (Bold 2001, Mannay-ool 2001b, Weatherford 2010). In the 13th century, a unified Mongolian Empire emerged; no previous nomadic empire had ever had such a great upsurge across such a broad territory. These serious horse breeders managed to retain control of vast territories of steppes with scattered regions of settled peoples, forming the beginnings of the Mongol empire (Bold 2001). Valeriy Kalashnikov et al. (2013) explain that with Genghis Khan's invasion into the region in the 13th century, local horses mixed with Mongolian horses and became smaller, resembling more typical steppe horses.

These ancient nomads were extremely dependent on their horses as a means of transportation, obtaining food, and building their steppe empires. As mentioned earlier, almost all the burial mounds from across different epochs revealed consistent evidence of horse sacrifices, suggesting the animal remained a prominent importance across the centuries. Argent (2016) states that a horse was not merely an object of material culture or a mortuary offering, but was also a beloved, reliable friend that bore its master swiftly into the next realm, the desirable upper world of the universe. It is notable that the legs of sacrificed horses were tethered with hobbles. It is obvious that ancient horse breeders wanted to secure the horses and not allow them to run off while their master (the deceased Turk) dismounted. In addition, according to the ancient Turkic law of the steppe, stealing a horse tied with hobbles was punishable by beheading. Argent captures the integral role played by the horse in nomadic culture:

> Bringing the horses into the burial mounds can be seen to accompany an increased perception of the importance of the horse and of human-horse bonds. The horses were now woven into and through this human society in ways that no animal had been before, and this is reflected materially—they were brought *closer*, in death as in life. (Argent 2016:24)

Argent's (2016) definition of "working riders" represents the relational approach between humans and horses with the following passage: "riders possessing the ability and knowledge to school horses to be ridden" (Argent 2016: 21). Riders had to possess a knowledge of how to create trust and respect with their animals; it is thus not surprising that the horse developed a powerful, imaginative presence throughout ancient sources as the adjunct of the warrior who fights the enemy in battle. Wars between different Turkic tribes occurred for several centuries, and the value of the horse is historically and mythologically present in the narratives of these wars. It is not just the horse's beauty, elegance, and capacity for carrying riders to faraway places that make it

important, but also the horse's ability to develop a special bond with humans. Ancient experts on horses knew well about human-horse relationships and the importance for a horse and human to gain each other's respect. According to Argent (2016), horses, as social mammals, are considered sensitive and responsive to human death, also grieving if the important human-horse bond is broken. Thus, in certain Tyvan epics, when the hero dies, the horse performs magic to make him live again. This mutual respect is evident throughout the ancient nomadic cultures of Eurasia. For instance, the Pazyryk burial mounds located in the Altai Mountains dating to the Iron Age reveal that horses were killed with a battle-axe, however this apparently violent act provided "the quickest and least painful death" for the horses (Argent 2016:27). This manner of killing implies respect for the animal:

> If the Pazyryk people considered that horses mourned the loss of human and horse friends it is unlikely they viewed horse grief as distinct from human grief, as is common today, but rather understood it as a state shared among all within the close ties of this interspecies community. From this perspective, the reason for the sacrifice of horses could have included not only the need for their services on the way to or in the otherworld, but also a belief that the emotional weight of the bidirectional bonds of loyalty between rider and horse were indissoluble, unrepeatable, and untransferable to others and should be maintained in death as in life. (Argent 2016:27)

The author states that the sacrifice of the horses in Pazyryk should be considered as "an act of empathetic kindness" (Argent 2016:27), helping to mitigate the loss of the human and equine partnership in life. With this idea in mind, the sacrifice of a horse becomes comprehensible by remembering that, in the afterlife, a horse in the upper world will turn into an extraordinary horse-hero with imaginative human traits and supernatural powers, as seen in the Tyvan epos. Even after death, the master and the horse will continue their mutually enjoyable partnership and take care of each other, safe in another realm.

6.2 Horizontal and Vertical Models of Tyvan Ontology in the Tyvan Epic

Tyvan mythology has a variety of epics that serve as a prime source of material defining the basic relationship between human and animals. In general, these epics reflect, express, and explore human perceptions of themselves in concert with the other animal inhabitants of their environment. In order to understand how humans engage with other species, I will first examine how they position themselves in their own societies and ontologies. The Tyvan heroic epos functions as "a living but endangered oral genre of considerable antiquity" (Harrison 2005:1) and

is a good starting point for such an examination. Morten Pedersen (2001) distinguishes between two types of indigenous ontological modality common in northern Asia, based on the presence of a particular animistic or totemistic principle. He proposes that the societies of Northern North Asia (NNA) have ontologies that are predominantly animistic in nature while the societies of Southern North Asia (SNA) include predominantly totemistic ontologies. According to Pedersen's typology, the animistic form is found among such groups as the Koryak, Chukchi, Even, Evenki, Tyva, and Sakha cultures, in which social relations are particularly horizontal in character with analogous identification. By contrast, societies of SNA are vertically oriented with homologous character:

> Put simply, whereas the societies of NNA organize the world horizontally (through notions of charismatic leadership, egalitarian ethos, bilateral descent, direct exchange, an orally based shamanist religion, etc.), societies of SNA organize it vertically (through notions of inherited leadership, a hierarchical ethos, patrilineal descent, indirect exchange, a script-based Buddhist religion, etc.). (Pedersen 2001:419-420)

Rane Willerslev and Olga Ulturgasheva (2012), drawing on their Siberian ethnographies, argue that the combination of both animistic and totemistic principles is the predominant form of these modalities. In fact, they suggest that "each typology is essentially dependent on the other and cannot exist without the other" and should be understood in strictly complementary terms (Willerslev and Ulturgasheva 2012:50). The authors admit that it is difficult to specify which particular social formation predominates at certain historical moments. As we shall see, such combination of animism and totemism also occur in Tyvan cosmology. This ontological similarity leads me to focus on the Tyvan epos, which is not just an important mythology, but also a vehicle whereby culturally specific forms of human and non-human interactions can be seen through incidences of animism, totemism, alterities, and transformations.

Indeed, Tyvan society's worldview includes a variety of nonhuman elements, such as *cher eeleri*,[120] "land spirits" or "spirits of places" (i.e. of a spring, a lake, a river, a mountain, a taiga, etc.). It is a Tyvan practice to devote ritual cairns, called *ovaa*, to these spirits. *Ovaa* are typically placed on mountain passes or at territorial borders (Kuzhuget 2006, Purzycki and Arakchaa 2013). In Tyvan cosmology, the universe is represented as a complicated system of multiple horizontal and vertical spatial units. The universe has a tripartite structure, including three separate worlds. The upper celestial world, *Üstüü Oran* (Upper world), *Üstüü Örtemchey* (Upper Universe), or *Burgan Orany* (God's world) (Kisel' 2009, Mizhit 2002), is ruled by a very powerful deity,

[120] Singular form: *cher eezi.*

Kurbustu Khan.[121] Other supernatural beings such as the sun, the moon, and the stars belong to this world (Kenin-Lopsan 2002). The middle world, *Orta Oran*, *Saryg Örtemchey* (Yellow universe), or *Chyryk Örtemchey* (Light universe), is inhabited by humans and all other living beings and spirits and ruled by *Cher-Sug* (Land-water). The lower world, *Aldyy Oran*, or *Karangy Örtemchey* (Dark world), *Tamy* (Abyss), is the world of the dead and evil spirits, ruled by the powerful Erlik Khan (Mizhit 2002). In the following schema (Figure 35), I use the horizontal structure of the Universe of the Tofa described by Mel'nikova (1994), along with some changes specific to the Tyvan/Tozhun worldview, based on information provided by Darzha (2007), D'yakonova (1975, 1976), Kisel' (2009), Kenin-Lopsan (1987; 2002), Pimenova (2007), Potanin (1883):

Üstüü Oran (Upper World)	*Kok Deer* (Blue Sky)-Father, *Khun* (Sun), *Ay* (Moon), stars, *Tos Deer* (Nine Heavens), multiple heavens, *Kurbustu Khan*, *Khayyrakan* (Bear/creator), *cher asky* (Earth mountain), *Amyrga-Moos* (Snake-Dragon), *Azar* (the country of star shamans), *azarlar/azar kurbustular* (ancestors, souls of heroes and warriors, masculine, birth, light, future)
	↑↓ spirits, humans, animals, *sünezin* (soul), *tyn* (human breath), *sülde* (life energy), *ku't* (life energy, mind)
Ortaa Oran (Middle World)	Earth-Mother, feminine, feminine-masculine conjunction, humans and nonhumans, nature, water, mountains, life, present
	↑↓ spirits, humans, animals, *sünezin* (soul), *tyn* (human breath), *sülde* (life energy), *ku't* (life energy, mind), *olug sünezin* (dead soul)
Aldyy Oran (Underworld)	Death, *Sok Tamy* (Cold Abyss/Hell), *Izyg Tamy* (Hot Abyss/Hell), Erlik Khan, *aza cherni* (bad spirits), fire, ancestors, reptiles, darkness, abyss, past

Figure 35. Horizontal Structure of the Universe.

[121] The deity also has different names such as: Deer, Tengri, Kuday, and Khayyrakan (Darzha 2007, Potanin 1883, D'yakonova 1975).

I will stress here that the boundaries of these three worlds are conditional, and humans can travel from one world to another world without any physical movement. According to Andrey Sagalaev (1992), the world in which a human exists depends not on absolute distance, but on the quality of space and time at his location point. The horizontal view of the universe that underlies Tyvan culture is expressed in the ability of a human to enter to another world unexpectedly. This type of sudden entrance to another world reflects the continuities of animist cosmology and horizontal sociality:

> This is the Möbius band, the model created by taking a paper strip, giving a half-twist to it, and then joining its ends. The band forms the figure eight. Constant movement on the surface of the figure eight shows that 'up' and 'bottom' are opposed conventionally because 'up' turns to be 'bottom' and 'bottom' turns to be up. (Sagalaev 1992:101)

This type of cosmology is well represented in the Tyvan oral tradition (Figure 36). In the 17th century, Buddhism arrived in Tyva. Since that time, the Tyva have practiced a peaceful form of syncretism, which manifests itself in aspects of cultural norms as well as through the vibrant oral tradition (Lindquist 2005; Mongush 1992, 2010). However, the situation with syncretism in Tyva is more complicated than it seems to be. Today the Tyva practice the northern Buddhism of Makhayana, which represents a combination of Tengrism,[122] Zoroastrianism with Hellenic features, central Asian Buddhism, and Tibetan Makhayana (Abaev and Khobrakov 2015, Khomushku 2010). Considering the possible combinations of all these various religious systems, both "animist analogous identification" and "totemist homologous identification" appear as common modalities in Tyvan mythology.

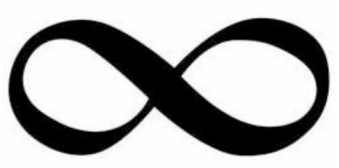

Figure 36. Möbius band.

Before delving more deeply into Tyvan epos, let me point out that, according to Pedersen's typology, Tyvan social relations are marked predominantly by "animist analogous identification"

[122] Burkhanism and Tengrism are proto-shamanic religious practices.

(Pedersen 2001:416). While this descriptor may appear a sufficient explanation at first glance, I question whether this classification is correct for Tyvan ontology in general. In fact, I believe that Willerslev and Ulturgasheva's outline resonates with some fundamental Tyvan concepts. I intend to show that Tyvan social relations and cosmology are characterized by a complicated combination of horizontal and vertical models, as well as animism and totemism. Moreover, the nature of these dualities is similar to the pair of opposites, *yin* and *yang*, in Chinese philosophy, which are both interconnected and interdependent (see Marty and Taliaferro 2010). In Tyvan cosmology, animism and totemism complement each other and yield to each other in a delicate way. There is also a tendency for these models to fluctuate in tandem (or in 'negative correlation'). As the extent of one model increases, the other correspondingly decreases. The co-existence and fluctuation of these models apply to all aspects of Tyvan existence, including their worldview, mythology, and folklore in general. Therefore, if I were to sketch what combining these dualities will look like, I would get an endless knot of happiness,[123] which is an important cultural symbol of the Tyva Republic (Figure 37).

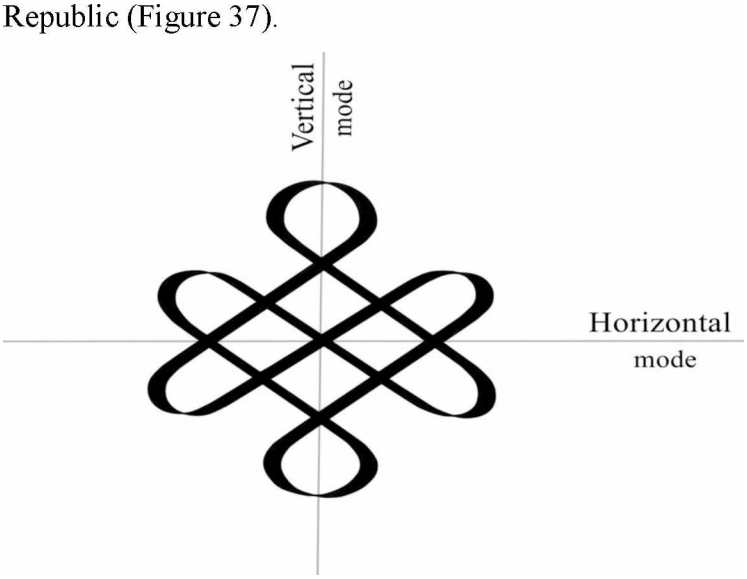

Figure 37. Knot of happiness.

With these dualities in mind, I will turn next to the Tyvan ancestors, particularly the ancient Turks. The Turks left behind many large, long, big stones erected in the steppe to honor their great warriors; all these stones have been dated to the 11th century. They are chiefly stylized human figures representing real individuals, bearing a poetic epitaph written in the Orkhon-Yenisei

[123] This concept is influenced by Tibetan Buddhism.

writing system. These ancient historical sources demonstrate some of the myriad forms of human-animal relations among nomadic populations. Typically, the epitaph commemorates a hero, describing his main battles and the number of enemies he killed, naming his beloved wife, children, and horse (Batmanov and Kunaa 1963). Thus, the famous inscriptions describing the military deeds of Kül'-Tegin, a general of the Second Turkic Kaganat, always mention the name of each of his horses that he rode into battle. For instance, it says "he mounted on his white horse Bashgu" and "he mounted his white horse Ayak-Shalchy" (Batmanov et al. 1962:202), which matches traditional formulas as well. Some parallels to this tradition can be found in Tyvan epics, which include the following standard elements: 1) a brave warrior with a reputation of glorious military prowess, 2) an extraordinary horse, and 3) the hero becomes involved in an incredible event, particularly a gruesome battle with the enemy. One can assume that at that time, human-horse relationships might have been filled with power, and the world of horses was dominated by the aggressive warriors they served. As we shall see, Tyvan epics offer a good example of molding human perception and beliefs with an attitude of respect toward horses.

It is important to stress that the Turkic empires at their peak power were stratified societies with established, inherited class systems. In turn, following statehood, the Tyvan culture, with its patrilineal patterns of descent, follows a predominantly vertical orientation, with "totemist homologous differentiation" (Pedersen 2001:419). It becomes clear that this line of societal structuring can be seen in the Tyvan epics. For example, such epics as "Alday-Buuchu," "Möge Shagaan-Toolay," and "Möge Bayan-Toolay" (Grebnev 1960a) begin with the introduction of the hero's father and his extraordinary horse; his father also owns a huge herd of horses (and camels as well, in "Möge Shagaan-Toolay").[124] According to the hierarchy of a patrilineal clan, the elderly father (who has himself been a hero in the past) gives to his son the extraordinary horse, a weapon or ammunition so he can be a warrior, and a herd of his own. All of these gifts, along with his enormous physical strength, make the young hero different from other men in the country. At this point, it makes sense that the relationships between humans and nonhumans have developed according to the principle of homologous differentiation.

In Tyvan epics, the human relationship to nonhumans starts according to "animist analogous identification" in the tradition typical of the NNA ontologies (Pedersen 2001:419). The

[124] It should be noted that some Tyvan epics include not only male heroes but also heroines such as Bora-Sheeley (Harrison 2005, Orus-ool 1997) and Khan-Kys (Van Deusen 2000).

theme of pairing the hero and the horse in epic-heroic contexts can be found throughout Indo-European cultures (see Mallory and Adams 1997). This theme of pairing also exists in the Tyvan epics, in which typically the hero and his hero-horse become blood brothers and take care of each other. According to Zailovsky (2006), sometimes the association of a horse and a horse-riding hero begins with the miracle birth of the hero and his future friend, a foal, born at the exact same time. According to the epos tradition of Turkic-speaking peoples, the young hero acquires his real name in an initiation, together with his horse. In the case of the Tyvan epics, the young hero goes through this process of initiation, learning to ride an extraordinary horse and then having his first haircut. This narrative is seen with the hero Tanaa-Kherel and his horse, Dash-Khüreŋ (see Kenin-Lopsan 1986).[125] For instance, when the young hero reaches three years of age, he finds the perfect horse for himself, and only after this discovery do he and his horse receive their permanent names.

Generally, before this age, a child is considered to be going through the process of being shaped into a true human being. At this early stage of life, particularly when the child's sinciput is still "open," he or she is vulnerable and an easy prey for malevolent spirits. In order to protect a child from these spirits, the family gives him or her a pejorative name, for example Kherlig-ool (Dirty Boy) or Pyttyg-Kys (Lice Girl). Using pejorative words and "providing the child with a protective [...] create an illusion of a 'closed body'" (Willerslev and Ulturgasheva 2012:56). This "closed body" can be achieved through giving a derogatory name, not cutting the child's hair, and by other protective means. In years past, men wore a braid to achieve a similar result. In the Tyvan epics, when the hero wins the battle, he removes the protective shield of his defeated enemy by cutting his braid. This act functions as a Turkic version of the Roman *Capitis Deminutio,*[126] symbolizing the enemy's powerlessness and loss of freedom. Although the enemy's hair would grow back, there was no way to restore lost honor. According to Mel'nikova (1994), among the Sayan peoples, the toddler is referred to as *anay* (calf).[127] This act of dehumanization conceptualizes the child as an animal in the eyes of potentially treacherous spirits: "Since a newborn's body does not fully belong to the human world or to the animal world, but shares a vital

[125] The epic "Tanaa-Kherel" existed in a number of variants. The legend has been told for many generations by storytellers. Today only one original version is known, which was recorded by the Tyvan writer, Oleg Sagan-ool, in 1938.
[126] Impairment of civil capacity.
[127] In order to avoid confusion, I will use this term to refer to Tozhu, Tofa, Dukha, and Soiot peoples. It overlaps with the definition of Sayan-Altay peoples, but here I would like to consider only reindeer-herding peoples.

relationship with both, it may be identified as being betwixt and between" (Willerslev and Ulturgasheva 2012:53). For this reason, in order to keep the protective shield for the developing sinciput intact, it is prohibited to cut the child's hair because a *süne* (breath, soul) can hide under the hair at night (although a child's *süne* often hides inside toys). It is said that the sinciput is the most vulnerable place on a child, and it is prohibited ever to hit the head of a child. The sinciput is also believed to be the most sacred spot on the child's body. Affection for children is usually expressed by repetitive sniffing (and kissing) of the sinciput's crest.

The Tyva believe that by the age of three, the child's sinciput is 'closed' and his development is complete. On this occasion, a *doy* (celebration) is held to symbolize the transition from the old status of "babyhood," into the new status of "humanhood." This celebration involves the first haircutting initiation ceremony. The child receives gifts, money, and animals from relatives and family friends. When the child's head is shaved or hair cut short, it symbolizes that the initiate has lost the old status of "babyhood." Likewise, the mane of the gelding is not cut because the Tyva believe that he will lose his strength and power. The mane can only be braided, especially for horse racing. According to Tyvan beliefs, the horse has one *ku't,* breath or soul. It is strongly recommended that humans not cut their hair and nails after sunset because hair or nails are the preferred locations for *süne* to hide during nighttime. We can extend this analogy to the horse's body and assume that the horse's *ku't* also hides in the hair of its mane and that trimming the mane could harm its *ku't*. Thus, the horse with his *ku't,* as an animated living being is understood to be like a person. We must bear in mind that in the Tyvan world, the horse encompasses multiple personas as a friend, blood brother, and protector; the Tyvan mythology illustrates all these roles of the horse. This ascribed humanization is fundamental to horse breeding cultures, where the horse does not transform physically into a human but acts instead in a human way, particularly as a horse entering the state of a superhuman being. Ancient horse breeders understood that horses deserved to have their autonomy respected, which is why respecting horse autonomy became a spiritual matter.

As for the pairing of the hero, Tanaa-Kherel, with his horse, Dash-Khüreŋ, these 'twins' received their names with the powerful respective meanings of "Pearl Beam" and "Brown Stone" to double their strengths (Kenin-Lopsan 1986). Moreover, the hero becomes known among his people as "Tanaa-Kherel, who has the horse Dash- Khüreŋ" (Kenin-Lopsan 1986:14). Tanaa-Keherl's initiation into human hood does not include the typical celebration of *doy*. Instead it

involves learning the skill of horseback riding. This process separates him from the society of ordinary people and distances his old status of child; it places him into his new status of hero and in a close relationship to his horse. Tanaa-Kherel moves quickly through these changes, symbolic of his soon-to-be responsibility as an extraordinary adult. As for his horse, at the age of three or four years old, it also faces an important life change, becoming a riding horse.[128] At this point, both Tanaa-Kherel and Dash-Khüreŋ move together from their inferior roles of child and young horse to the superior roles of heroes, whole and ready to fight against human and nonhuman enemies. In our understanding, the hero's initiation illustrates that animistic and totemistic principles can interplay with each other. Animism can be seen as both a human and an animal have spiritual essence (breath), *süne* and *k'ut,* both have extraordinary powers, and both undergo an initiation process leaving their vulnerable childhood behind at age three, ready to fight with human enemies and malicious spiritual agents. Moreover, after the initiation process, the hero and the horse acquire even more supernatural powers.

It is common practice in Tyvan epics for a hero to receive a horse as a good companion, blood brother, loyal friend, wise guardian, reliable helper, and strong protector. The main role of this horse is to be a guardian to protect the hero from malicious spirits and treacherous enemies. Although the hero and the horse come to possess special qualities, the horse can be regarded as a totemic animal, which is taken as a practical emblem of the hero. Thus, after the young hero receives his name, he introduces himself and his horse to others. For instance, in the epic "Möge Bayan-Toolay," the hero introduces himself in the following manner: "My name is Möge Sagaan-Toolay, who has the horse Tuman-Kyskyl" (Grebnev 1960a:153). In other words: no horse, no hero. At this point, "negative correlation" takes place, as the extent of the human-spirit model decreases, and the power of the totemic model begins to increase.

Soyan and Ondar (2015) emphasize the essential identity of the hero as reinforced through the power of his horse, which is expressed by a range of hyperboles. The powerful horse is a totemic symbol representing physical strength, vitality, and the free spirit of the hero. The "Tanaa-Kherel" epic (as well as other Tyvan epics) can be regarded as the ancient guide to how to earn a horse's respect and trust. In the Tyvan epic, we can see a close relationship between humans and animals that brings to our attention a striking parallel between species. These two heroes are not just friends; they develop a relationship as two brothers. Here, we observe that the pairing theme

[128] The dramatic process of initiation includes castration and training.

produces both homologous and vertical relations, as well as analogous and horizontal relations. For instance, Tyvan tradition depicts the extraordinary Dash-Khüreŋ as a wild horse with threatening and destructive powers (mirroring those of Tanaa-Kherel). When Dash-Khüreŋ runs, high mountains turn into sand under his hooves and, where he steps, rivers start to run on the barren lands. Only a very strong hero, such as Tanaa-Kherel, with great courage, can tame this aggressive creature. It is quite a challenging process to gain the respect of the horse by asserting himself as a leader. Tanaa-Kherel eventually breaks Dash-Khüreŋ, who is trying to buck him off and destroy everything that stands in his way. It takes ninety days for the hero to subdue the horse, but after that, Dash-Khüreŋ is willing to obey Tanaa-Kherel. However, the hero's physical strength and courage alone are not enough to tame the strong horse. It is also Tanaa-Kherel's wisdom, respect, kindness, and his love for living beings that earns Dash-Khüreŋ's respect and trust. According to Peemot (2017:139-140):

> The Tyvans believe in the existence of the life energy, or spirit, called *хей аъм* [*hei ăt*], which is translated literally as a 'gas horse'. It is the first thing herders talk about when they answer a question on the horse's value. The multiplicity of answers can be summarized as following: the spirits of a herder and horses are connected; to have his spirits lifted a herder must treat his horse with respect.

Not only must the hero establish a mutual partnership with the horse, by which the man and the horse take care of each other, but their energy spirits must also become connected. Tanaa-Kherel is a loving, tender, and affectionate hero. When Tanaa-Kherel is separated from Dash-Khüreŋ, for example, they deeply miss each other. When they meet again, the hero cries out in happiness.

Stories of blood brotherhood are common topics throughout the Tyvan epics. Such fraternity is the uniting factor that "weaves together persons of all sorts, be they humans, animals, or spirit entities" (Pedersen 2001:416). The epic "Alday-Buuchu" illustrates an example of bold brotherhood in the following episode:

Uzun-Saryg Khan asks the hero, Khan-Buuday, to bring him a herd of horses. The hero's horse, Khan-Shilgi, warns him about the dangers of these horses: "These thousand horses participated in three wars. They have steel sabers on their legs, sense human smells from the distance of one year's horseback ride, hear a horse's clopping hooves from the distance of a one month's ride. These horses and I are brothers. We have one mother, the great mare Khan-Shilgi. Stay, at home, Khan-Buuday. I will go to these horses, and they might recognize me." He comes to the herd and asks them: "Our mother, the great mare Khan-Shilgi gave birth to all of us in the

place, Sook-Kyzyl Taiga. How are you doing, *akalarym* (elder brothers) and *ugbalarym* (elder sisters)?" The horses recognize him: "Right, he is our *tuŋmavys* (younger brother)." They come to him and sniff him. Then they agree to go with Khan-Shilgi to Uzun-Saryg Khan *aal.* Here, we can see an example of a perspectivist notion where nonhumans begin to act like humans (De Castro 1998), particularly when horses act like experienced and dangerous warriors, and their social relations are based on a human kinship system. In this animistic world, horses see themselves as humans and act accordingly.

Let us look at another example of human-nonhuman social interaction from the epic. Animism seems to be a fundamental guiding principle in the relationship between the hero and the horse. For instance, a typical feature of Tyvan epics is anthropomorphized hyperbole—when an animal is given human traits, such as human speech and wisdom, simply because it was seen as a human exemplar in classical pagan societies (Salisbury 2010). The horse usually has a great soul, is highly intelligent, and wise. Seen in this way, totemism is manifested in the form of molding the horse as a guide and mentor. The Tyvan epic demonstrates that pairing animism and totemism can interplay with each other, but when the horse advises his master, totemism is elevated to primacy. According to Joyce Salisbury (2010), from the animal's speech and actions, humans can see their own flaws and distil a moral truth to guide their future actions. In the Tyvan epics, although the main hero is depicted as good-hearted, his moral character is sometimes left to be ambiguous. Throughout the epos, the horse appears as a good adviser that is ultimately smarter than his master. He constantly outsmarts their enemies, which makes him a flawless superhero. The horse plays the role of the older brother, guiding the hero. The horse is also a loyal friend, occupying a subject position from which he offers moral evaluations of human beings and their enemies. The hero sometimes commits an elementary blunder; in which case his horse always gives him sage advice on how to fix a situation or plan effective strategies to accomplish the mission, despite the setbacks. For instance, when the hero kills an enemy in the battle, his horse advises him not to leave the enemy's community behind without a protector and to care for them as well as for his enemy's horse.

Deeper examinations of the Tyvan worldview demonstrate a horizontal structure to the universe: "The left is associated with the lower world and the right side with the upper world, and ethnological cases point out that the western side and downstream directions are related to death and the underworld" (Devlet and Devlet 2002:124). Sagalaev (1992) states that in the mythology

of the Sayan-Altai peoples, the west is associated with the upper world and the east with the underworld. In completing his mission, the hero enters another world as he moves forward. As is expected in mythology, the boundaries between the worlds are not distinct. According to Sagalaev (1992), in a myth, a human, before entering another world, changes his human status. He falls asleep, or uses the magic of shape-shifting, to transform his body into another species.[129] For example, in the "Alday-Buuchu" epic, the main hero, Khan-Buuday, comes across a lake in the underworld; while crossing it, he goes through a series of horizontal character transformations in order to hide from the dangerous ruler, Erlik-Lovun-Khan. First, he turns into a duck, then a scoter, and finally into a swan. These transformations enable him to cross the lake successfully. Sagalaev (1992) informs us that the narrative line in which humans adopt a bird form is old and common among the Ural-Siberian peoples, and has a clearly animistic character.

The epic horse can be regarded as an Asian version of the legendary Pegasus, albeit a wingless version. What makes the two creatures similar is that they both have powerful abilities. Typically, a totemic animal is ascribed supernatural powers, such as the ability to fly, the possession of oracular powers, or a knowledge of magic. In Turkic-Mongolian epics, the hero-horse has a threefold nature encompassing its divine origin:

> [i]t is an animal with the shape and function of a horse; it is the hero's companion and friend, vested with human speech and wisdom; and it is also a deity who can foresee events and forewarn of danger. Toward these ends it can transform itself into various shapes and help the hero to achieve final success. (Gejin 1997:335)

As a nonhuman with supernatural powers, the horse has an appropriate knowledge of the existence of the universe and orients himself to the spatial structure, enabling travel between the upper and lower worlds. It is interesting to note that, in the Tyvan myth "The Girl Who Has Been in the Underworld," a young girl travels to the underworld while sitting on a dried horse skull (Mizhit 2009). Here, the dried skull functions as a type of animalization, in which an animal's aspect (for instance, the ability to run while carrying a rider) is symbolized by a particular body part of the animal. In another myth, "The Herding Girl Who Has been in the Upper World," a young girl returns from the upper world also riding an old, dried horse skull. The elders listen to her story and recognize that the skull was an *ulu* (dragon) from the sky (Mizhit 2009). As a strong animal, even an old horse skull retains the superpowers of this animal and can give assistance in

[129] In real life, it is believed that only shamans have the ability of shape-shifting.

linking humans to the higher realm of spirits. All these supernatural abilities place the horse higher, at the top of the social hierarchy above his master, even though the hero is also capable of performing magic. The horse, when functioning as a spirit guide, is completely also a totem. Having a sacred connection with his master, the horse often saves his life. For instance, in the "Tanaa-Kherel" and the "Alday-Buuchu," the horse brings the dead hero back to life. In his turn, the hero also brings back dead people from death; for instance, Khan-Buuday, in the "Alday-Buuchu" epic, resurrects three warriors who then become his blood brothers. These sorts of transformations can be interpreted as typical features of animistic societies.

It should be noted that the epic, as an oral poetic form, is not static, as it can be influenced by historical and social changes. In particular, the Tyvan epic was strongly influenced by the Tibetan form of Buddhism. For instance, the epic "Möge Bayan-Toolay" (Grebnev 1960a) mentions that the lama, Koldu-Burkhan, performs a ritual. In "Alday-Buuchu" (Grebnev 1960a), after the lama gave one of the wives of Alday-Buuchu a remedy, she is able to conceive a son. According to Grebnev (1960a), in one of the versions of the "Tana-Kherel" epic, Shan Khan has one hundred and eight wives, none of whom has a child. The lama advised Shan to bring a sacred woman to his kingdom. A hundred wives, revering the sacred wife, subsequently gave birth to boys. However, eight wives, who refused to pay reverence, only gave birth to puppies. The idea here is that the spiritual attributes and participation in divine ordinance make certain things sacred and prohibit certain other actions. Performing Buddhist rituals, reading sacred books, and revering sacred people can be regarded as totemic behaviors in this context.

It is not my intention to examine all "horizontal" and "vertical" features throughout the Tyvan epics. What emerges from the previously given examples is the conclusion that the modalities of analogous identification and homologous identification "are never manifested to an equal degree, both will always be present" (Pedersen 2001:419). The Tyvan ontology is neither predominantly horizontal nor predominantly vertical. However, the social relations between human and nonhuman appear to be predominantly of animist analogous identification, which is always twinned with totemist homologous identification, and vice versa. Coexistence of these models and their fluctuations in tandem is illustrated in the Tyvan oral tradition and as a governing principle of Tyvan ontology. In general, the Tyvan epics give a clear picture of how the Tyvan people see themselves in the universe and provide illustrations of how they interact with animals and the spirit world. As we can see, the Tyvan epics can be taken as lessons of love, trust, and

cooperation, reflecting the life, customs, and particular historical events of this culture in a versatile and enduring way.

6.3 What is the Tyvan Horse?

There is confusion among experts as to what specifically constitutes the Tyvan horse breed and how one assesses the Tyvan character of the equine population of the republic. This confusion arises in part because the concept of a "Tyvan horse" can have different meanings. A distinction should be made between "Tyvan horse" and various "crossbreeds" that also occur. In biological usage, there is no major difference between a "Tyvan horse" and a "crossbreed," and the concept of the "Tyvan horse" usually includes "crossbreeds" as part of that definition. Mongush et al. (2009) state that 93 percent of horses in the Tyvan Republic are either a Tyvan breed or a crossbreed, and suggests that the rest are comprised of other imported breeds. Kalashnikov and Kalashnikov (2011) maintain that only 26 percent of horses in Tyva belong to the indigenous breed. Oorzhak (2013) argues that in 2013, 62.2 percent of the horse population is Tyvan and the remaining 37.8 percent are horses of other breeds or mixed origins. While working in the field, I asked herder-hunters and villagers about the Tyvan horse breed and the extent to which the crossbreeds were well-suited for the taiga. At first, I was confused by their widely divergent answers. First, a majority of people replied that the Tyvan breed did not exist anymore, since it has been thoroughly mixed with other breeds. Some people even laughed at me, apparently amused by the naïve questions of a *khoray uru* (town girl).[130] I was puzzled by these replies and reactions, because what I saw in the three reindeer herding camps clearly looked to me like typical Tyvan horses: short and sturdy (Figure 38). Moreover, the reindeer herder-hunters told me that they were Tyvan horses. However, elders in Adyr-Kezhig told me that the Tyvan horse today no longer looks like the horses they knew when they were children, simply because horses were smaller then. I was left to ponder the following questions: What constitutes the real Tyvan horse breed? Does the pure Tyvan horse breed still exist, perhaps in other parts of Tyva? What horses do the Tozhu primarily use? Pouring through historical and ethnographical resources and newspapers, I examined the history of the Tyvan horse breed in close and exacting detail.

[130] That is how I was often identified in the villages and the camps.

Figure 38. Tyvan horses in the reindeer herding camp. December 2014. Photo by Tayana Arakchaa.

The Tyvan horse is an ancient breed, the result of mixing the steppe and forest-steppe types of horses with Mongolian horses (Mongush and Yuldashbaev 2009, Kalashnikov et al. 2013, Voronkova 2012). The Tyvan horse is extremely hardy and readily survives in a harsh steppe-mountain environment. One salient feature of this horse is that it is capable of digging forage out from under the snow; it usually does not require hay preparation, except in central districts during very snowy winters. These horses are kept in their pastures year-round and live almost as wild horses in their natural environment, requiring minimal human supervision. According to Peemot (2017:138), Tyvan herders consider this horse as *cher maly* (livestock of the land), while other livestock animals fall into the category *kodan maly* (livestock of the encampment), which includes, for example, sheep and cattle. Also, the horse appears to be a liminal creature due to its "not-quite-livestock status [which] is determined by its proximity, on one hand, to wild animals, and on the other hand to humans" (Peemot 2017:141). In Inner Asian terms, it is complicated to separate the domestic and the wild. Fijn (2015) suggests that one "instead think of them along a continuum, where there can be considerable crossover between the two forms" (Fijn 2015:283). Fijn (2015)

argues that such definitions of domestication stem from Western methods of categorization, and do not apply to how animals are kept and herded in Inner Asia. Although horses are regarded as domestic creatures, their behavior differs from the introduced breeds. The Tyva usually warn urban visitors that their horses are *dikiy* (wild) and bad-tempered, and that it is unsafe to ride them.

Potapov (1969) examines traditional household economies of nomadic groups, focusing on mountainous nomadic herder-hunters. These herder-hunters are considered to be forest tribes (forest *Uraynkhay*) who live in the forested central and northern parts of Tyva. Potapov (1969) suggests that the number of different kinds of livestock directly corresponds to the natural environment available. Thus, herder-hunters have horses, cows, and sheep. They prefer to have more horses than sheep because horses are better suited to this particular environment. Horses can provide transportation, meat, milk, leather, and hair. Horses have historically been a means to achieve wealth and prosperity (Vainshtein 1980a, Darzha 2003). Potapov (1969) states that it is not necessary to use cattle-pens or other buildings to restrain horses. A horse will graze year-round and does not need prepared fodder. The horse is considered an animal with "hot breath" that will bring subsequent warmth to humans. Likewise, horseflesh is considered "hot," and the Tyva strongly recommend eating it cooled in wintertime.[131] Horse meat is regarded by cattle-breeders as a delicacy when compared to the meat of all seven domestic animals.[132]

According to Russian horse breed classifications, indigenous breeds are classified into three types: steppe, mountain, and forest. The Tyvan horse was included in the mountain type of horses, a logical classification because mountains and hills cover 80 percent of the Tyvan territory. In 1951, two breeds were established in Tyva (Budënny 1952, Vasil'ev and Klunduk 1964). The first one was the small, stocky indigenous horse used by pastoralists, officially recognized as the Tuvan Horse (Figure 39),[133] and the second was the Tuvan Draught Horse (Upper Yenisei Horse), a horse of mixed origin, which was a larger horse used for draught purposes (Kuklin 1950, 1951). The small, robust Tyvan horse had a heavy body and head, short limbs, and a shaggy coat. The mane and the tail were long. The only way to be certain of how Tyvan horses looked in the middle of the 20th century is to use the measurements of their bodies made by the Tyvan Experimental

[131] The Tyva divide the meat of animals into two groups: "cold" and "hot" meat. It is strongly recommended to consume "cold" meat in summer and "hot" meat in winter.
[132] Only young horses are slaughtered for meat.
[133] To avoid any confusion, I would like to emphasize that this is an official name for the breed. From here on, I will use the word Tyvan instead.

Station, which studied them in detail. According to these data, the horses on average had withers at a height of 128.8 cm, a girth of 157.3 cm, and a weight of 280 kg. At that time, the Tyvan horses were slightly larger than typical Mongolian horses (Budënny 1952).[134] The Tyvan Draught horse was similar in build to the Tyvan Horse, but was larger, with a height of 152-161 cm (Kuklin 1950, 1951).

Figure 39. "Tyvan flea-bitten horse with a saddle." Photo by V. E. Ermolaev. Circa 1940s or 1950s. Courtesy of the *Tyva Republic National Museum after Aldan-Maadyr*, cat. no. НМРТ КП-11286/1164.

Tyva had a large number of horses in the pre-Soviet era. The only records available for the period are those collected by travelers or Russian government officials in the late 19th century. Benningsen (1913) quotes a number of 170,000 horses total. Turchaninov (2009 [1915]), in his report, gives us a much higher number, at 747,400 head. The great divergence in these numbers challenges the reliability of either source. The 20th century was a turning point in human-horse relationships throughout Russia. Pomishin (1993) states that there were several major losses to the

[134] Perhaps due to mixing with other breeds.

horse population during the Civil War (14.9 million horses), collectivization (17.7 million horses), and the Second World War (13.3 million horses). I suggest that Tyva specifically endured three major losses in the equine population during 1) the Second World War (1941-1945), 2) the reconstruction period (1946-1988), and 3) *perestroika* and the post-Soviet period (1989-2009).

The Second World War marked the first significant loss of horses in the modern era. In 1940, the number of horses in Tyva was 122,500 (Klopov 1973). All attention was turned to the fronts, and the Tyvan government made a great gesture of generosity by donating 50,000 horses (as well as many other domestic animas) to the USSR during the war.[135] In addition to the removal of thousands of horses, horses were also confiscated for agricultural use on collective farms. This Soviet policy sharply diminished the equine population in Tyva. Thus, in 1945, the Tyvan horse population dropped to 68,600 head (Klopov 1973).

During the second period of loss of horses, Tyva went through a fundamental socialist reconstruction. It was the age of the rise of mechanization and electrification, and subsequently the role of the horse decreased in the rural economy. According to Pomishin (1993), from a state economic viewpoint, this animal was worthless for agricultural purposes because it lagged behind mechanized development. Soviet planners viewed horse husbandry as unprofitable and merely complimentary to the development of other agricultural sectors. Reconstruction of Tyvan horse husbandry followed a similar scenario in Southern Siberia. "Primitive" practices of husbandry were unacceptable, and "scientific methods" of horse husbandry, including selective breeding, were introduced. The federal government planned and controlled all economic activities in these spheres. In many cases, local administrators of the provinces interpreted their role managing "useless" animals incorrectly. Tyvan horses were indiscriminately sent to slaughter because they were thought to be useless. The number of horses killed was two to three times more than the number of foals born in this period. One justification of this killing was to save pastureland for small-stock animals and thereby increase meat productivity (Pomishin 1993). By 1970, the number of horses had dropped to 38,500 head (Klopov 1973).

In addition, the price of horsemeat dropped dramatically and became the lowest-priced of all animal meat. Horses became a cheap commodity. As a result, the number of horses drastically declined. For example, in neighboring Buraytia, the number of horses dropped to a quarter of the population by the early 1980s (Pomishin 1993). Tyva had a total of 48,000 head of horse in 1982.

[135] The loss was so great that herders had to ride bulls instead of horses.

According to Vatutin (1984), by 1984, the number of horses had dropped to 31,600. For the next 25 years, the number of Tyvan and half-breed horses continued to decrease (Zhigzhitov 2000). By 2009, only 33,209 horses were recorded in the republic (Mongush and Yuldashbaev 2009) and 93 percent of them were the Tyvan breed or its crossbreeds (Mongush et al 2009). However, by 2015, the number of horses increased. Lopsan and Kuz'mina (2015) state that the horse population was 57,700. Vatutin (1984) states that the carrying capacity of all pastureland in the republic could support 54,000 horses, and it was economically reasonable to develop horse breeding as there was a low cost to raise them. Kalashnikov and Kalashnikov (2011) report that, despite these losses in the equine population, Russia presently is the fourth largest producer of horse meat in the world. Forty tons of horse flesh was produced in the country in 2011. Ten provinces, including the Tyva Republic, contributed 97.3 percent of meat. From 2008 to 2011, horse meat production increased in the republic up to 2.4 times previous levels (Kalashnikov and Kalashnikov 2011).

Figure 40. The Tyva Republic's emblem.

Although the number of horses has drastically decreased, today they are frequently seen along the roads, grazing on the steppe or mixing with herds of cows, sheep, and goats on the grassy slopes. Horses are an icon of the magnificent Tyvan landscape, particularly the legendary endless steppe. For accomplished horse riders, the horse is not only a means of transportation and cherished companion, but also a source of meat, milk, *kumys*, hide, and hair for making rope. The horse has played such an important role in nomadic populations that it is depicted prominently on the Tyvan Republic's emblem (Figure 40). At the center of the emblem, a man in traditional clothing rides a horse toward the beams of the rising sun. Both the man and the horse represent strength, dignity, and freedom. The image also expresses the traditions of life of their ancestors, the nomadic peoples

living in the territory of Tyva for many centuries. It represents the Tyvan commitment to high ideals: peace, harmony, and prosperity for all humanity. The horse is considered to be a fundamental symbol of the Tyvan identity.

Although horses hold high value and prestige in nomadic cultures, aboriginal breeds of horses have fared much worse than small-stock animals. The Tyvan horse experienced a series of transformations over the last hundred years. By the end of the 19th century, the earliest Russian peasants had made their way along the rivers of the central, eastern, and southern parts of the country, and the trade between the Tyva and Russians began booming. At the same time, the Tyva continued trading with their other neighbors—Mongols, Buryats, Khakas, Altai, and Tofa. In addition, newcomers used wood to build houses, cabins, and other buildings. They needed versatile horses for multiple tasks, including logging, farming, and for transportation. Although small, the Tyvan horse was robust and sturdy, had outstanding stamina, and was capable of galloping for forty kilometers without a break, but Russians remained skeptical about its capabilities. They considered larger Russian horses superior to smaller Tyvan horses. They preferred to have larger draught horses that could haul heavy loaded carts or sledges thorough the muddy taiga, rugged mountains, and deep snow. Those peasants were more familiar with the Russian breeds, and they evaluated a breed's ability to perform tasks based on its appearance. However, the problem was that their horses were not adapted to the harsh climate. Peasants realized that their problem could be solved by crossing Tyvan horses with larger Russian horses, particularly the Kuznetsk, Orlov Trotter, and Minusinsk breeds.

The endurance of the Tyvan horse and the beauty of imported horses prompted the Russian trader, Georgiy Saf'yanov, to create a new, improved breed. Saf'yanov owned different herds of animals, fields of crops, windmills, trading posts, and gold mines in Minusinsk and Tyva, and could afford to start a breeding program (Kiselëva 2014, Saf'yanov 2012). According to Turchaninov (2009 [1915]), Saf'yanov was attracted to the prospect of producing foals with qualities similar to their parents. For this purpose, he bought a small herd of crossbreeds between Tyvan and Tomsk horses, Russian Trotters, Arabians, and English Thoroughbreds. A novice in selective breeding, Saf'yanov lacked the ability to make an appropriate plan for breeding management. At first, fully-grown imported horses, as well as many newborn foals, died in the harsh climate. According to Turchaninov (2009 [1915]), Saf'yanov did not have a clear view of how to achieve his goals or how to prevent failure. However, his first crossbreeds combined some

characteristics of their parents, including a larger body size and increased endurance (positive traits), as well as thin legs and recalcitrance (negative traits).

According to Leonid Dakar (2011), Andrey Saf'yanov, who already had some knowledge of horse breeding, continued the family business. He dedicated himself to producing a breed that was strong and suited to the local environment. He succeeded in crossing indigenous mares with stallions of the beautiful, elegant Orlov Trotter, the versatile Minusinsk horse, and other southern Siberian indigenous breeds. It took thirty years to produce a new breed, the so-called Saf'yanov Upper Yenisei breed of Tyvan horse (Dakar 2011, Kabo 1934). This breed was larger, stronger, and sturdier than its predecessors and had a high level of endurance. Dakar (2011) reports that Andrey Saf'yanov's horses contributed to the successful operation of the gold mining *artels* located at Kharal, Oyna, and Kara-Beldir in the Tozhu district. His caravan of hundreds of horses pulled sledges loaded with goods to supply these remote places. There is some confusion in historical sources about this horse. In some accounts, it is called the Saf'yanov Upper Yenisei Horse; other sources call it the Upper Yenisei Horse. In 1951, this breed was officially recognized as the Tyvan Draft Horse (Vasil'ev and Klunduk 1964), and its fame remains well known in the history of Tyvan horses. Clearly, local horses in the Piy-Khem and Tozhu districts have some bloodlines of this Saf'yanov horse.

Aboriginal horses were comparatively small and compact, with short legs and necks, as a result of their adaptation to the extreme climate conditions. Because of their small size, Soviet planners considered these horses to have low meat productivity. According to Pomishin (1993), in the 1930s, the Russian government initiated the introduction of these new breeds to "improve" upon small aboriginal breeds as the best option for increasing meat productivity. Buryatia and Tyva provinces were doomed to cope with the introduction of larger foreign breeds. At least five foreign breeds were actively introduced in Buryatia. There is no doubt that the same introduction of foreign breeds applied to the Tyvan case as well.

The appearance of the Tyvan breed of horse improved with the addition of the larger Kuznetsk horse, which had a massive skeleton. According to Mongush and Yuldashbaev (2009), in the 1930s the Tyvan horse was mixed with the slender and highly trainable new breed, the Budënny. This crossbreeding, started by Russians, became systematic under the Soviet government. Following the Second World War, stallions of other breeds were distributed throughout Tyva. Soviet selective breeding management programs maintained that horses with an

outstanding sire would have a higher probability of having desired traits. The pedigree would give an indication of the genes to be passed on and increase the concentration of helpful genes in any one animal. Experiments with crossbreeding moved to look at other breeds, such as the well-boned and muscled Don breed and elegant and speedy Russian Trotter (Grebnev 1955). According to Klopov (1973), in the early 1970s, the republic's government recognized the need for strong draught horses, horses' milk, and meat production. According to a breeding plan for creating draught horses, the local mares should be crossed with the Upper Yenisei breed. Information about crossbreeding of this particular breed is not available.

The period of the 1970s can be marked by a breeding obsession, as collective farms rented massive numbers of the thoroughbred Budënny stallions, or so-called "stallions of the general Budënny." As a result of this Soviet art of breeding, the majority of Tyvan horses have at least some genes from this breed and have the famous "Budënny star," a white spot present on the forehead of these crossbreeds (Figure 41).

Figure 41. Horse race at Naadym Festival in Chadan. July 2015. Photo by Tayana Arakchaa.

By the early 1990s, the number of Tyvan horses had declined and only a few purebred horses were left. Over the last hundred years, the Tyvan horse gradually evolved into something new. With the added bloodlines of other breeds, Tyvan horses gradually increased in size and became more elegant, but still remained heavily built and stocky. According to Tsyren-Dorzhu Zhigzhitov (2000), today, the average height of the modern Tyvan stallions is 140.1 cm and the weight is 417.1 kg; the height for mares is 135.1 cm and their weight is 377 kg. Contemporary Tyvan horses can be as much as 49 percent larger than the pre-Russian type and weigh significantly more as well. They have also inherited endurance, allowing them to stay at pasture year-round. They share with the pre-Russian type a remarkable ability to thrive in a harsh climate. Similar schemes of experimental breeding with cows, sheep, goats, yaks, camels, and reindeer were promoted by the Soviet Ministry of Agriculture all across Siberia.[136]

I will here note that the Tyva place horses into two groups. The first group includes fast-running saddle horses and horses for meat production. The second group comprises sport horses that participate in horse races. Much can be learned about these sport horses from observing the celebrations of the Naadym festival, occurring in summer. Naadym includes three key competitions—wrestling, horse racing, and archery—all of which are activities key to success within Eurasian nomadic cultures. Naadym is claimed to be the oldest and most important festival in Inner Asia, and its original purpose was to identify the best warriors and horses. It is like an eastern Asian version of the Olympic Games. According to Choodu (2011), the festival is held annually in midsummer and it was popular until 1940, when it was forbidden under the rule of the Soviet-minded Tyvan government. *Spartakiada,* a sports event, was introduced as an analogy to the western Olympic Games. Horse racing, however, did not fit into the idea of *Spartakiada* and was removed from the games. 1993 was another crucial point in equine breeding in the republic, as the Tyva once again began to practice horse racing during the Naadym festival. The growing popularity of horse racing has again begun to increase the importance of the Tyvan horse in the republic.

Tyvan horse breeders over the centuries have worked to become successful in breeding horses who perform well in the Naadym races. Peculiarities of horse race traditions must be explained here. Unlike Western horse racing, in which horses cover short distances, Tyvan horse

[136] Because the taiga-type reindeer is the largest sort of reindeer, it was chosen for experimental breeding with the tundra-type reindeer.

races can cover anywhere from 10 km to 40 km of steppe. The Naadym Festival is annually celebrated in one of the seventeen *kozhuun* (districts) of the republic. The Tyva consider horse racing the most exciting event of the festival. Typically, children and teenagers are chosen as jockeys. Although the rules are subject to change, the general rules remain the same—the distance of the race is determined by the horse's age. For example, horses up to four years old race for 10 km, and horses older than four years race for 25 km. Race assistants select Tyvan horses based on the breed standards. The horses entered should meet the main criteria: a particular height of their withers. If the Naadym race symbolizes Tyvan traditions, then the grand prize of the race (a new car) shows the ambitions and current trends in equine breeding. The horse population has dramatically changed over the last seven decades. With breeders bringing in stallions, and pure thoroughbreds of different breeds, breeding has become more commercial.

Another turning point in the history of the Tyvan horse occurred in the middle of the 2000s. The Tyvan government recognized that because of mixing with other breeds, the Tyvan indigenous breed was on the edge of extinction. In 2007, in order to prevent the Tyvan horse from going extinct, a program to preserve this endangered breed was launched. The main goal of the breeding program was to preserve the Tyvan horse gene pool and increase the number of Tyvan horses. Under this program, the government annually pays subsidies to local herders who breed purebred Tyvan horses. Today, three districts have focused on pure-breeding: Tes-Khem, Erzin, and Ovyur *kohuuns* (southern parts of Tyva). My informants told me that the Tyvan breed can still be preserved in Tere-Khöl *kohuun* because the district is so remote. Sokolova (2014) records that some success has already been achieved in the republic at revitalizing the horse population. For instance, in 2007 there were 27,000 horses. By 2014, the horse population had increased to 40,000 head. In addition to breeding, in 2014 the government implemented new rules regarding the Tyvan breed in horse races held during the Naadym Festival. Under the new rules, the festival holds a separate race for just Tyvan purebred horses (Sokolova 2014).

Ironically, while the Tyvan President, Sholban Kara-ool, makes efforts to restore purebred horses by financially stimulating the herders, in practice herders continue to freely breed their local horses with other breeds. Mongush and Yuldashbaev (2016) assert that 90 percent of the horses participating in the Naadym horse race are Tyvan horses and crossbreeds, while the rest are imported breeds. Some crossbreeds with the Orlov and Don bloodlines are widely recognized as being good sport horses. Local breeders are interested in improving the Tyvan breed by crossing

it with other breeds. For instance, although the famous, wealthy horse-breeder Sergey Ynaalay from the Erzin district, who has 200 horses, exchanges his horses with other horse-breeders, he continues to crossbreed local mares with stallions brought from the stud farms of Krasnoyarsk and Novosibirsk. He justifies this choice through his stated aim of bringing in a new gene pool and thus improving the Tyvan breed (Ondur 2005). Yuriy Oruspay, the Head of the Sport Horse Federation, admits that the modern Tyvan horse is actually a New Tyvan breed (Rus. *Novaya Tuvinskaya poroda*) (Kachan 2015). Today, the Tyva are dealing with two types of Tyvan horses: the pre-Russian, or old Tyvan type of horse, and the new Russian-made or New Tyvan type. Within a relatively brief period, the Tyvan horse has been mixed into something new, the *Novo-Tuvinskaya poroda* or *Novo*-Tyvan breed (New-Tyvan). In our modern era, the Tyvan government's concern with inherited "purity" has been displaced by a desire to express ethnic identity and national pride. Cassidy (2009) notes a similar situation in Kyrgyzstan, where the horse serves as one of the motifs strengthening national identity. It is true that the horse is one of the main national symbols of Tyva, reminding people of the great nomadic history and nomadic life that still exist in the republic. The history of the Tyvan human-horse relationship is strongly marked with ethnic components, serving to portray the Tyvan people and the republic in a positive light.

The horse is the most popular animal in local contemporary media and advertising as a symbol of Tyvan ethnicity. Any crossbreeding with other breeds is perceived as bringing the threat of contamination and being a signal of assimilation and domination by Russian newcomers. Crossbreeding processes are regarded as inevitably leading to the extinction of the Tyvan horse, which will be a great loss for the healthy biodiversity of the republic. Crossbreeding can be also viewed as socially and politically destructive for a particular ethnicity. At the same time, because of human activities, it is impossible to avoid such "contamination" when other breeds are so easily imported to Tyva. Researchers such as Kalashnikov et al (2011) and Pomishin (1993) stress that selective breeding of aboriginal breeds in order to increase the probability of desirable results should be done carefully, without crossbreeding foreign breeds into Tyvan stock. They also emphasize that once the gene pool of aboriginal horses has disappeared, restoring it will be impossible. While the local government encourages horse owners to breed pure Tyvan horses, horse owners continue to improve their stock with other breeds, especially when factoring in the lure of trying to win the grand prize in the Naadym races. It is not clear yet how unregulated

crossbreeding may affect the gene pool of the Tyvan horses, or how the molded *Novo*-Tyvan breed will fit into evolving breed standards.

Local breeds of horses living in the territory of Tyva have experienced a long-term evolutionary process, a process which is difficult to demonstrate because specific data is severely lacking. The concept of a "Tyvan horse" is problematic to categorize. First, archeological and historical data show that the size of horses changed considerably over time, depending on what sorts of new horses were brought to the region. When the Huns invaded the region, local horses mixed with Hun horses, became larger. During the time of Genghis Khan's rule, horses became smaller. Because of exchanges and trade with neighbors, the aboriginal horse evolved from a mixture of different Eurasian horses. In the past decade, scientists have discovered that the genome of the Tyvan breed contains the DNA of related indigenous breeds, such as Altai, Mongolian, and Buryat horses (Voronkova 2012). The Soviet State controlled breeding, enforcing crossbreeding and approving standards for local breeds. Though the idea of crossbreeding is not new for the Tyva and their ancestors, today horse owners have various new material available for crossbreeding, and new "mongrels" continue to evolve. The Tyvan horse may evolve into something completely new after a hundred years, depending on breeding trends.

6.4 Where are you Aran-Chula and Ezir-Kara?

Love of horses is essential to the nomadic culture of the Tyva. "A horse is a man's best friend" is an absolute way of thinking for nomadic people. Many traditions, rituals, and ways of thinking are seen through the prism of the horse. Grebnev (1960b) notes that in the past, the second meaning of the word *mal* (any herded domestic animal) was 'horse.' It was often used with this meaning in the Tyvan epics, for instance, "*mal kishteen"* (a horse was whinnying) (Saryg-ool 1947:62). Many Tyvan folksongs are devoted to horses, often commemorating their beauty. The Tyva have a rich repertoire of folksongs that are as old as their culture. They often concern long distance travel from one place to another, the beauty of a fast horse running, and love for the beauty of the country. The Tyva have more phrases and linguistic expressions about horses than about any other animal. One of the most popular horse expressions is "A true human can hide in rags, and a fast steed can be under an old saddle,"[137] meaning that no one should be judged strictly according to their appearance. In the past, the Tyva could judge people according to the condition

[137] The similar English idiom is "Do not judge a book by its cover."

of their horses. Horses were a symbol of strength, power, and wealth, and Tyvan nobility demonstrated their high status by riding the best horses equipped with expensive bridles and saddles with silver inlays. In Tyvan epics, wealth is always expressed through owning many herds of horses and decorating them with precious metals, such as gold and silver. This means of measuring wealth can be typically metaphorical; for instance, *söy-belek*,[138] a gift for a bride, is compared to gold the size of a horse's head and silver the size of a wolf's head (Grebnev 1960a, 1960b).

When speaking about Tyvan horses, I must include the story of the famous mythical horse, Aran-Chula, common to many epics of the Turkic-Mongolian speaking peoples.[139] A Khakassian myth depicts Aran-Chula as a strong horse with seven hearts and seven different powers. He feels neither hunger nor thirst and never tires. His eyes are blazing fire; a fire with smoke emanates from his nostrils, while steam pours forth from his lungs, turning into blue clouds in the sky (Butanaev 2014). Samdan (2016) states that, according to the well-known Tyvan legend, Aran-Chula can be born once among 10,000 horses belonging to a noble person who has been given a gift from the creator to raise *mal.* One day a young man was returning back home, when a strong storm began. All of sudden, his horse Aran-Chula told his owner that he would survive during the cold winter weather of the storm if he would kill Aran-Chula by stabbing him into the back of the head and hide in his stomach. Aran-Chula assured his owner that his stomach would be warm for the next three days, by which time the storm would stop. The young man did as the horse hold him to do. He survived the storm and returned home where he made an *igil* (Tyvan musical instrument) (Figure 42) and covered it with the leather from Aran-Chula's forehead. Then he began to sing. Since then, the Tyva have decorated an *igil* with a horse head, and covered the instrument with leather from the horse's forehead,[140] and made strings from horsetail hair. Since then people have also used the expression *khey-ăt,*[141] or "strength of spirit," which is related to the horse (Alekseev and Yusha 2010). Building inner strength, *khey-ăt*, is essential to living a life of purpose and fulfillment. *Khey-ăt* can also mean "inspiration" and describe a driving force (Samdan 2016). For

[138] Unlike a bride price, this gift was given when children were born (or before they were actually born).
[139] In some languages, the name is written: Aranchula.
[140] The master often uses the leather of small livestock, but if a client would like to have an *igil* with sonorous sound, the master covers it with the leather from a horse' forehead.
[141] *Ăt* means a horse.

nomads, this animal represents essential characteristics for their lifestyle; physical strength, personal drive, and passion, which carry humans forward in life.

Figure 42. Igil. Courtesy of the Ministry of Culture of the Tyva Republic. Today, most people realize that mythical flying horses with magical powers do not exist; however, interestingly, the myth of Aran-Chula has transformed into a form of wishful thinking. Some Tyvan horse breeders still believe in the existence of Aran-Chula, although the mythic Aran-Chula has practically nothing in common with their desired modern horse, except perhaps in terms of his strength. Sergey Ynaalay tells of another legend presenting Aran-Chula as a skinny, shaggy, and miserable-looking horse that has not yet been found. When he runs, his muscles warm up and he becomes capable of running long distances. He has one distinguishing physical feature: ideal round hooves shaped like a bowl. Such horses can be born only once among several thousands of horses and could possibly be hidden in plain sight in some herd (Ondur 2005). Can a horse with these round hooves really exist? It is extremely unlikely; physically it is impossible for a horse to have round hooves. It is interesting to wonder: why is the belief in a real-life Aran-Chula still popular among horse-breeders, passing from one generation to another generation? I would suggest that it is an essential part of the nomadic dream to live with freedom, prosperity, and success. A champion horse that brings a grand prize (perhaps a new car), respect, and fame, can also be seen as part of this dream.

Perhaps Ezir-Kara (Black Eagle) could someday receive the title of Aran-Chula, the most famous horse that ever lived in Tyva. This horse is reputed to have been the fastest horse ever in

Tyva. Ezir-Kara was a black horse, bred in the Tes-Khem *kozhuun* in the 1930s. Kara-Kÿske Choodu (2011), a Tyvan writer, journalist, and composer researched him for many years, and his story of Ezir-Kara, which I summarize here, is written in considerable detail and with great accuracy. Choodu (2011) states that Ezir-Kara's owner, Soyan Sandanmaa, was the son of a horse trader and had good knowledge of horses. He rode on Ezir-Kara 532 km on a dirt road to Kyzyl in order to participate in a race at the Naadym Festival. Ezir-Kara won the race three times—in 1934, 1935, and 1936. According to the Tyvan tradition, if a steed wins the Naadym race three times, he receives a new victory name. That is how Ezir-Kara received his name and became the overwhelming most famous horse in Tyvan history. After his fourth victory in 1937, he was renamed Kuluk-Kara (Irrepressible Black). On the 6th of July in 1938, a major historical event happened when the first three airplanes reached Tyva from the USSR. People were so impressed by them that the Tyvan governors gave the steed a new name, Uzhar-Kheme (Flying Boat) in honor of these airplanes. The newspaper *Vperëd* (Forward) published his new name in the spirit of that time, in Russian—*Samolët* (Airplane) (Choodu 2011).

Unfortunately, Ezir-Kara did not have a chance to beat other horses in the next race in 1939. His owner spoke four languages, Tyvan, Mongolian, Tibetan, and Russian and had a successful career of his own. Soyan was a Communist member and the head of the district's Revolutionary Youth Union. However, soon his good luck turned on him. Two weeks before celebrating Naadym, Soyan was arrested on charges of anti-revolutionary activities, named an enemy of the people and sentenced to death. Ridiculously, the favorite horse, Ezir-Kara, was also charged as an enemy of the people. It is claimed that before the festival race, Ezir-Kara was excited by hearing other horses, and he ran around his tethering post. Ezir-Kara was removed from the race despite public protest during the festival. It surely would have been a race to remember if he had participated in it. Both the master and his horse shared their common fate; like two tragic heroes in the Tyvan heroic epos (Choodu 2011).

If this story were fiction, there could be multiple endings of Ezir-Kara's story, and at least we would know his fate for certain. However, According to Choodu (2011), no one knows what exactly happened in the end. There are two popular versions of his end. According to the first, he was sent to work as a wood sled horse in the taiga on the Yenisei River, where inmates chopped timber. Here Ezir-Kara hauled heavy loads of wood, lost weight, and became weak and skinny. He was no longer capable of hauling timber and was left in the taiga to perish. According to the

second version, as an enemy of the people, he was shot, burnt, and buried. In all versions, nobody took care of his skull following the Tyvan traditions. According to tradition, when a valuable horse dies, the ritual *pashgagyyr* is held. A true friend must be accompanied on his last trip with great honor. The owner puts the horse's skull in a tree to show respect and veneration (Choodu 2011). No other great horses had overcome such adversity as Ezir-Kara did. If the story of Ezir-Kara were written as fiction, it would vividly describe his life's journey. In popular memory, Ezir-Kara will always remain the greatest horse ever, a true friend to Aran-Chula, a hero who did not deserve his ugly ending. One of the favorite songs among the Tyva is "Ezir-Kara," written by Kara-Kÿske Choodu. It is accompanied with beautiful *sygyt* (whistle), a style of throat singing performed by the classic, highly professional folk ensemble "Tyva." This song is dedicated to Ezir-Kara's beauty and fast running.[142]

6.5 Horses Among the Tozhu

Tozhu horses were mentioned once in Turchaninov's report of 1915 (2009 [1915]), as they were comparatively smaller than horses in the southeastern part of the country. Their distinctive feature was their hooves, which were a little wider than those of other horses. Some chestnut horses displayed traits typical of the Mongolian horse, such as stripes on their legs and "wings" (spots). Today, Tyvan horses can have a dorsal stripe from their withers to their tail and stripes along their legs. According to Fijn (2015), these markings represent their link to an ancient breed of domestic horse.

Vainshtein (1980a) emphasizes that in the Tozhu district, the composition of livestock varies in comparison with other parts of the republic: "According to the 1931 census, approximately two hundred and fifty pastoralist-hunter households of Todja had 1971 horses, and 1,331 head of cattle, with sheep and goats accounting for nearly one-third of the total stock (463 and 572 respectively)" (Vainshtein 1980a:57). Vainshtein explains this given preference toward horses developed because of favorable natural conditions in the district, such as luxuriously vegetated valleys and meadows. Because of this, the Tozhu district was one of five official horse-breeding oriented districts in the republic during the 1970s. Vautin (1984) estimates that the

[142] See https://www.youtube.com/watch?v=Wv4c8sgmjec.

carrying capacity of the valley pastures of only one *kolkhoz*, 1 May, was up to 3,300 horses, and the district itself could tolerate even higher numbers of horses.

According to the Federal State Statistics Service, Krasnoyarskiy Region, Republic of Khakasia, and Republic of Tyva, by 1 January 2017, there were 617 horses in the district. Since 1931, Tozhun equine population has dropped. However, the number of villagers who wanted to have horses was steadily increasing. First, horses were still used as transportation in rural areas, particularly for hunting trips. Second, life was harsh with little opportunity to obtain employment in the districts. The horse provided opportunities to earn some money, particularly during the summer when tourists came. Third, horses cost almost nothing to raise.

Indeed, Adyr-Kezhig residents have never lost their deep connection to their land. Almost every family is involved in seasonal work, which is common in village life. The taiga is closely tied to the village. From July to September, women and children pick berries to make jam and sell some of their harvest at the market in Toraa-Khem. From August to October, is the season to harvest cedar pine nuts, one of the main sources of income in the taiga communities. Gathering cones is a time-consuming process requiring at least two people. Families live in the taiga for at least a week in order to collect large piles of cones and remove the nuts from them. After that, the villagers take the harvest to dealers in Toraa-Khem. From mid-October to late December, it is the "soft gold" rush, the hunting season on sable. All those who possess firearms search for prey out in the taiga. Lucky hunters who own horses are able to ride farther from the village and have less competition for sable. Finally, from April to May, the second wave of the pine cone nut harvest occurs. Families again return to the taiga to gather the windfall of pinecones from the ground. The amount of the harvest is less than in the fall, but it is still a significant seasonal income for unemployed people.

Once I met a woman in her middle 50s on my way to Adyr-Kezhig. She was strikingly different from other Adyr-Kezhig people in her opinion about life in the village versus in Kyzyl.[143] Six years earlier, Ugbay decided to move to Kyzyl looking for job opportunities, but also to provide a higher education to her youngest son, who had finished high school in Kyzyl and was accepted at the Tyvan State University. Although Ugbay and her family left their home full of relatives and friends, they enjoyed life in the capital. No doubt due to her optimistic attitude toward life, Ugbay

[143] According to Tyvan etiquette, during the conversation I referred to her as *ugbay* (elder sister), as she called me *tuŋmam* (my younger sister). Because of this, I use Ugbay as a pseudonym.

could survive anywhere. Although she and her husband were retired, Ugbay found a job as a *pel'meni* (dumpling) maker in a small private enterprise with a monthly salary of 10,000 rubles. The family bought a *dacha* (summer house) in the vicinity of Kyzyl. Nevertheless, the couple returned to the village every fall and spring for seasonal work. Ugbay was motivated to harvest pine nuts as additional income. With this seasonal income, she can pay her son's tuition fees and other living expenses. The couple were satisfied with their harvests as they earned 20,000 rubles (approximately USD 616) for ten days of work in the fall of 2013 and about 10,000 (approximately USD 279) in the spring of 2014. Ugbay told me:

> Only lazy people complain that there is no work in Adyr-Kezhig or Kyzyl. Kyzyl has many job opportunities. If you are hardworking, you always find an opportunity to earn money in the village. Look at Adyr-Kezhig land, you can pick up berries, gather nuts, hunt, and do other things. The land of Adyr-Kezhig continued to feed us, and I am grateful for such opportunity.

Another link to the land can be seen through domestic animals. Livestock are always present in the community. Many families own one, two, or even three cows and at least one horse. This is a typical picture of a Tyvan village: herds of cows and horses graze around the village or wander freely through the streets (Figure 43). Owning cows and horses is a practical way to produce milk, meat, transportation, and manure for potato fields and vegetable gardens. Horses are also used to reach the main village, Toraa-Khem, since public transportation collapsed after the dissolution of the USSR. Adyr-Kezhig, which developed during the Soviet era, continues to sustain itself around its available resources, thanks to the rich taiga and good pastures in the valleys. Seasonal work allows residents to support their families and themselves and even to aspire to upward mobility. This life, based on intergenerational knowledge and traditional practices of harvesting taiga resources, continues to perpetuate amid social and economic changes. This is possible because everyone still has access to the land and resources of the taiga.

Figure 43. Horses at pasture in the vicinity of Adyr-Kezhig. June 2015. Photo by Tayana Arakchaa.

Over the past decade, the district has attracted more tourists, who come to explore the taiga wilderness and also to visit the mineral hot spring, Choygan.[144] Tyva is famous for its various *arzhaan* (holy, healing water), or mineral springs, although they are in some of the less readily accessible places in the republic. Thermal waters are used to treat a wide variety of health issues, including skin, joint, gynecological, stomach, and nervous disorders. The local population has used these springs for centuries. One such spring of them is Choygan Arzhaan, a natural spa complex, and considered the most powerful *arzhaan* in Tyva. It is located 1,550 meters above sea level in the remote taiga in the north-eastern corner of the district (on the border with Buraytia Republic), on the western slope of the Eastern Sayan Mountains. The natural mineral complex includes 33 cold (up to 20°C) and hot (above 20°C) springs with various chemical compositions and temperatures in the gorge complex. It is a unique deposit of carbon dioxide mineral waters, which are rare beyond the republic's borders, although widespread spread throughout alpine systems in

[144] It is usually referred as the "Choygan mineral water" in scientific literature.

Siberia (Kopylova et al. 2014). In addition, the combination of mountain air ions with fir volatiles is said to double the healing effect of the springs. It is possible to travel there by helicopter or by horse. The first option is expensive, and the majority of people cannot afford it. The second option is quite adventurous and challenging. It usually takes seven days of horseback riding to get to Choygan. Such a horse rental cost about 7,000 rubles in Adyr-Kezhig during the summer of 2014. The cost included a two-week trip to go to Choygan and come back to the village (the price does not include the cost of local guides). It is probably the most adventurous destination the republic can offer to tourists, although it is physically quite challenging and even dangerous for first-time horse riders. But those who have made the journey will never forget the moments of excitement, picturesque landscapes, and magic healing power of the hot spring. Today, more urban people are eager to go to Choygan, and more villagers want the opportunity to earn money shepherding tourists.

Thinking about Tozhun herder-hunters, reindeer probably spring first to mind. In the ethnographic literature, however, "northern Eurasian reindeer nomadism is more accurately defined as "an ecological-economic continuum of human activities in which the reindeer plays a part" (Krupnik 1993:87). In taiga-type reindeer herding, the horse is also a present component of reindeer-herding life, playing a pivotal role in the taiga economy. Although horses cannot compete with reindeer, which represent wealth, mobility, identity, and the taiga lifestyle in general, the reindeer herder-hunters' dependency on the horse has increased in the post-Soviet era. The horse also means mobility and connection to the families living in the village.

It is not known when the Tozhu herder-hunters began to use horses. Mel'nikova (1994) states that the neighboring Tofa became familiar with horses in the beginning of the 20th century; although Petri (1927) notes that the neighboring Tofa used horses long before Russian colonization. According to Rassadin (2005), in Tofa myths and folklore, the main characters ride not only reindeer but also horses (see Rassadin 1996). Considering the ancient origin of the mythology, Rassadin (2005) states that the ancestors of the Tofa were familiar with horses many centuries ago. In addition, the modern Tofan language includes an ancient lexicon of horse husbandry with Turkic character (Rassadin 1971). This suggests that some of the ancient Turkic tribes mixed with the ancestors of the Tofa and perhaps brought the horse technology with them. Both Petri (1927) and Rassadin (2005) stress that horses were important animals to the Tofa.

Moreover, Rassadin (2005) uses that importance to justify a suggestion that the Tofa practice a horse-reindeer hybrid herding economy.

The Tozhun language also includes a large component of horse husbandry vocabulary (Kuular and Suvandii 2011, Seren 2006, Vainshtein 1980b). According to Prokof'eva (2011 [1957]), the Tozhu became familiar with horses under the influence of the Mongols. Scholars of the early Soviet era have maintained an academic bias that the Tyva often borrowed new ideas and concepts from their neighbors, the Mongols.[145] In the case of the Tozhu, this suggestion was absurd, as horse breeding in Tozhu and its neighboring regions was known dating back to the Bronze Age. We find unquestionable evidence of the familiarity of the Tozhu with horses stretching back for centuries. According to Vainshtein (1980a), reindeer herding in the Sayan region was transformed by interaction with the Turkic horse and cattle breeders. Vainshtein (1980a) states that 40 percent of the reindeer herding *aals* had one to two horses, and a few wealthy herder-hunters owned more than ten horses. For instance, Sergey's father owned a herd of twenty to thirty horses depending on the year. In general, herder-hunters kept horses exclusively for transportation, and horsemeat was not a large part of the Tozhu diet. The Soviet agricultural economy attempted to transform herder-hunters into serious horse breeders on a massive scale. Some families were forced to manage small herds of from ten to thirty horses.

Vainshtein (1961) states that the Tozhu herder-hunters obtained horses by trading with their Tyvan neighbors, who were herders of the steppe-valley regions where conditions were favorable for raising horses. The Tozhu typically traded some of their reindeer and fur pelts with lowland herders to procure horses and other desired commodities. According to Sergey, the Tozhu from the southeastern part of the district traveled directly to herders' camps of the Tere-Khöl district to exchange reindeer for horses. This trade traditionally took place between individuals with well-established trading patterns. Sergey's family maintained this relationship with the families in the region of Kungurtug village for over two generations, until the rise of the Soviet era, during which time these trading connections were eventually lost. In addition, active trade existed between the Tozhu herder-hunters, Tere-Khöl residents, and their Mongolian neighbors. This is why the Tozhun horses had typically Mongolian features in the past. Nowadays, herder-hunters continue to trade with Tozhu cattle and horse breeders.

[145] In some cases, Soviet scholars maintained that they borrowed new methods and concepts from the Chinese or the Russians. For instance, the idea of agriculture (see Vainshtein 1980a).

Today, all the households (except Sergey's) have at least one to three horses in the *aal*. Horses are used during the warm seasons, when hunter-herders must leave the mountains to visit the village. As I mentioned before, although reindeer herder-hunters heavily rely on horses during the warm season, some Tozhu still underestimate their horses. This failure to take full advantage of horses' unique abilities in the taiga has an ecological basis. In general, ethnographical studies on taiga reindeer herding have included virtually nothing about the role of horses in the taiga reindeer herding economies, with the exception of some brief accounts from Petri (1927) and Rassadin (2005). Nowadays, reindeer remain the over-emphasized animal in studies of taiga reindeer herding. Reindeer are generally identified as the only significant animal in reindeer herding and hunting economies, at the expense of horses and dogs. Such studies focus on those aspects in which reindeer are key animals facilitating human survival in the taiga (reindeer herding, herd management, hunting) but neglecting other animals, which play major roles in various aspects of the native economy. The horse still remains the most neglected animal in academic accounts. We cannot reasonably contend that the Tozhu are "pure reindeer herders" in the sense that they do not depend exclusively on reindeer and their services or products. Reindeer cannot satisfy all the needs of herder-hunters year-round. Since the Tozhu rely heavily on hunting, this type of social organization requires multisource exportation and dependence on other animals, such as horses and dogs. I have already established the importance of dogs and my goal in this section is to examine the importance of horses and human-horse relationships.

Those studies of northern pastoralists that deal with horses do so primarily in the context of the reindeer herding value system, in which, most of the time, horses have an inferior status compared to reindeer or dogs, particularly during the hunting season. Although reindeer and horses differ, horses should be viewed as complementary to reindeer, rather than being inferior to them. Each species has strengths and weaknesses. Reindeer are associated with tameness, stamina, maneuverability, endurance, soft riding, taiga, marsh, highland, cold, snow, show patch, rain, wind, meadow valleys, mushrooms, grass, lichen, salt, hunt, and income. Horses are related to masculinity, the wild, temper, intelligence, strength, endurance, the taiga, the steppe, meadows valleys, lowlands, warmth, grass, and a link to the human world (villages). One animal feels comfortable in a particular environment where the other is unsuited to it. However, neither animal is superior to the other; as the status of one animal increases in a particular season, it brings a corresponding decrease of the status of the other animal and vice versa. Herder-hunters keep a

measured balance between these two animals in order to manage a household economy successfully.

It is important to recognize the asymmetry in human-animal relationships in which the inferior status of horses (among the Tozhu) does not simply depend on their relative unsuitability for the taiga environment. There are other reasons for the horses' lesser status. First, as was mentioned, the horse concedes to the reindeer in terms of maneuverability in the highland taiga. The horse is really a beast of burden because it carries a human and load through difficult terrain. It becomes challenging to ride a horse on a path after it has rained for several days, or through sections of a muddy swamp in which a reindeer would feel comfortable and move easily and swiftly. Some horses can panic as soon as they feel their feet sink on muddy patches. When I traveled for the first time to the summer *aal,* Sayzana instructed me on certain behavioral features of the gelding:

> Do not make sudden movements. Do not take off your rain poncho while riding a horse. He will be scared when you raise your arms while you are taking off your coat because all of a sudden, the horse will see something large rising above his head. He will be frightened and run off the path and this can be very dangerous. There are many ditches around. You cannot see them because they are covered by the grass. Big ditches have dried thin tree trunks like stakes that can pierce your body. You do not want to be injured or die here.

After the rain stopped, the sun reappeared and shone brightly. I became hot, and I began to sweat under my rain poncho. I decided to remove it carefully. I bent forward slowly. When my poncho was right above my neck, I felt my glasses falling down. At this moment, I heard noise from the bushes, and all of a sudden, my gelding ran off the path. I pulled on my poncho quickly and caught my glasses, and I was able to stop my gelding, Shavydar. It turned out that two small owls had flown up from the bushes we were passing by, frightening Shavydar. I was thinking about what I had heard often from the herder-hunters: "Anything could happen in the taiga," meaning that the taiga is unpredictable. Horses are easily scared compared to reindeer. This story exemplifies how herder-hunters rely on their good knowledge of their animals and environmental characteristics. Their spatial and social behaviors can be interpreted as adaptive responses to specific features of their animals and environment.

Another important thing to remember is that there is always the possibility that a horse can end up stuck knee-deep in mud. In such a case, it is definitely a life or death situation for a horse. The horse either has to get out of there, or, if not able to do so, it must be shot by the owner. For

instance, Arzhaan, a young man in his early twenties, who was Sayzana's neighbor, traveled from Adyr-Kezhig to the *aal* in October. Although it was chilly October weather, his horse became stuck, knee-deep in mud. This weather cooled down the horse's limbs and put pressure on its body so that the horse could not free itself from the mud trapping it. Arzhaan tried to help the horse, but all his attempts failed. It was terrifying for a young man to see what his horse was going through during this period; he did not want it to die from starvation and cold. He decided to shoot the horse, but he could not do it when he looked into his friend's eyes. Arzhaan did not give up, and instead walked to the neighboring *aal* to seek help. It took all night to reach the *aal*. It was a challenging task to rescue the horse from this muddy trap. Three men spent a whole day trying to pull the animal from the mud. At last, they decided they could attempt a couple tries, and if they could not free the horse, they would shoot it right there. Finally, they rescued the poor horse, bringing a happy end to the story. What would Arzhaan do without his only horse? It would be very challenging to get to the village and stay there for a while, especially for a young man with a girlfriend there.

Riding a horse in the taiga also involves another inconvenience. For instance, Mergen, a young cattle breeder, who was raised in a reindeer herder-hunter's family, complained to me about the disadvantages of riding a horse:

> I do not like to ride a horse. No matter the weather, while riding a horse, it eventually becomes sweaty. Then you need to have a break and wait for the horse to cool off. It is annoying. A reindeer does not get sweaty, and you do not need to have a break. That is why I like to ride a reindeer.

His comment was odd to me, because my understanding was that the Tyva love horses. I had grown up hearing Tyvan songs celebrating the beauty and strength of the horses. However, the Tozhun songs are quite different. They typically concern a hunter who is riding his fast reindeer and going to hunt sable. Mergen was familiar with these two different species, and he could compare their advantages and disadvantages. Indeed, while we were traveling, Sayzana's mare sometimes milked its *kulun* (a foal up to one year old).[146] Because of this feeding, she got steamy and sweaty more often than usual. Sayzana knew when she needed to check on the mare. If the mare was sweaty, we had to stop our riding. Sayzana removed the saddle and blanket and let her mare slowly cool off. We had a short break while waiting for the mare to dry out. Sayzana

[146] Anoka is the owner of this mare.

explained to me that when the horse's large muscles get hot its body releases heat by sweating. It is then necessary for the horse to cool off in order to prevent serious problems such as contracting pneumonia.

These disadvantages, however, do not account for the horse's comparatively low status in contrast to reindeer and dogs. Horses have an inferior status because of their comparatively small contributions to the economic system of the household. The behavior of reindeer and dogs drastically increases the economic opportunities of the Tozhu, especially when they are used in the taiga during the hunting season. Horses remain almost useless animals during this important season of high economic activity. One of several defining aspects in the relationship between resource distribution and hunter-herders' spatial and social organization is the amount of time that horses spend with their owners. The Tozhu practice a pattern of vertical migration—between highland forest tundra and lower altitude winter pastures in the taiga. Taiga herder-hunters send their horses to pasture in the valleys in winter, at the time of the migration with their reindeer to winter pastures, usually before the hunting season starts. Herder-hunters make arrangements with cattle and horse breeders (often relatives or friends) to look after their horses. In exchange for this service, herder-hunters bring them food, money, or reindeer meat. This is a good example of the web of social relations that forms around humans' and horses' shared interests. Without supervision in the fall, horses would escape to low land valleys where the risks of being stolen and sold as meat are high. Thus, the prestige of the horse fluctuates depending on the season: it increases in summer, and it decreases in winter as the horse is removed from the *aal.*

Dependency on horses dramatically increased after the collective farms disappeared and state transportation was no longer provided. Today, it is impossible to imagine the hunter-herders' life without this important animal, which mainly serves as a mount. Although herder-hunters state that they use horses only in summer, my observations conflict with this statement. From my experience, families continued to use horses from April until late December because herder-hunters must go back and forth to the village for different reasons. Horses spend at least half of the year with herder-hunters. Because horses stay with them only a half of the year, the Tozhu believe that they do not know these animals to such a degree as they know their reindeer. Regardless of this view, they know their horses' behavior very well. According to Hiroki Takakura (2010:25-26), human-animal relationships are established through "familiarity:"

> Familiarity, quite different from tameness, is the reversible relationship between a human and an individual animal. Tameness goes beyond the levels of individual relationships or even the animal species level; it is an irreversible relationship between humans and animals. In other words, regardless of domestication, a human entertains a certain sentiment toward an individual animal. The type of sentiment reflects the extent of familiarity or extent of indifference to the animal. This sentiment may be projected from the individual animal to all the species or only toward some specific group which the human conceives of.

Moreover, the Tozhu have the most intimate familiarity with their horses, as their horses are trained to carry humans and loads. Although herder-hunters do not consider themselves serious horse breeders, they have enough knowledge to manage horses well. During those few months they spend with their horses, they spend a considerable amount of time riding, migrating, and observing the animals in general. Herder-hunters who grew up with horses in their *aals* recognize the economic importance of these animals. There are several beneficial reasons to have a cross-species herding structure. The main reason is it allows the employ of horses as working animals. From the herder-hunters' point of view, horses carry heavier loads: up to sixty kg through slushy, hilly taiga, while reindeer can only bear a burden ranging from a standard twenty kg to thirty kg. In other words, one horse can do the work of three reindeer. According to Bold (2001), the Mongolian horse carries about a third of its own weight. Considering that the Tyvan horse is similar to the Mongolian horse, we can assume that the Tyvan horse can bear the same amount of weight. During seasonal migrations, the heaviest packs, two leather handmade *barbas* (saddle bags) attached to each other, are placed on the horse's saddle. Horses also carry a rider more easily while bearing such a load for long distances in the highland taiga.

According to Oehler (2016), in the past the Soiot used white horses strategically as a lure in the hunt during the rut season. A hunter hid behind a white horse. Because reindeer had poor eyesight, it would mistake the horse for a reindeer. The hunter shot from behind his horse. The hunter did not mimic reindeer by holding up antlers or wearing reindeer hide.

In multi-species households, horses co-exist well with reindeer. This co-existence does not look like the co-existence of the Tyvan herd of sheep and goats, in which both species of animal pasture comfortably together. Horses are more independent in terms of pasturing. Reindeer, very gregarious animals, are content to stay within the herd. While reindeer pasture on fresh highland meadows moving quickly from one patch to the next patch, horses roam-graze practically everywhere. They can stay together with reindeer in meadows, pasture on the slopes of the hills,

in the taiga, or graze on whatever is available nearby. However, both species display feral behavior. Herder-hunters often referred to their reindeer and horses as "half-wild" (Rus. *polu-dikie*), meaning these animals display natural, independent behaviors. For instance, Shavydar's favorite pasture is in Toran, where the family stayed for the fall season several years ago. Shavydar grew up in the taiga and he was quite independent. Because the recently increased wolf population bothered herder-hunters a great deal at the Toran *aal*, the family had to abandon this place. Shavydar is inclined to flee sometimes to his favorite pastures at Toran. He had already escaped there three times in the summer of 2013. The family could not explain the reason for this bizarre foraging behavior because they thought that there was no difference between the grasslands of Toran and other summer *aals*. Apparently, something had attracted Shavydar there, and the family had to keep an eye on the gelding. This behavior pattern irritated Andrey because he frequently had to search for him and bring him back home. It was also a long way to travel, and it took about a day of riding to get to Toran. One evening Shavydar was missing, and Andrey, fearing that Shavydar had gone again to Toran, began his search. His suspicions were right, as he caught Shavydar on the way there. Sayzana scolded Shavydar, who looked guilty, like a misbehaving teenager. After this escape attempt, the family had to watch Shavydar even more vigilantly and from time to time checked on the three horses (Shavydar, the mare, and her calf) to assure that they were not out of sight. The family thought that impish Shavydar could even lead the mare with her calf to Toran.

People can also refer to their horses as "wild" (Rus. *dikie*), a word which indicates that horses are not only highly independent but can also be powerful and aggressive. The Tozhu say that is more fuss to control a Tyvan horse because it can be stubborn and aggressive. In summer of 2013 when we rode to Sayzana's camp we met elder herder-hunter Konchuger with his youngest son on their way to the village. We stopped for a short break. Sayazana told me: "Quickly! Shavydar and Konchuger's stallion will fight. Take Shavydar to this place" (pointing to the trees ten meters away from us). Later Sayzana explained to me that Tyvan horses like Shavydar and Konchuger's stallion had fought fiercely before and were even more aggressive than European breeds.

One of the major advantages to having several horses in the *aal* was for securing living food reserves. Elderly Surgakchi, whose parents owned fifteen horses, stressed the importance of horses in the *aal's* economy. Her father annually slaughtered one horse so the family could live on

its meat throughout the winter. It was a way of maximizing the amount of food available, in addition to hunting and trapping; it was the only way to survive in case there was a sudden lack of resources. There is always the possibility that hunting will not succeed. There is also a widespread cultural belief that horsemeat is "hot" and has a warming effect in the winter. It is interesting to note that hunter-herders do not milk their mares, while other Tyvan horse breeders produce the popular beverage *kumys* from horse milk. The Tozhu prefer to nourish themselves exclusively with reindeer milk and its products. When I questioned women about mare milking, they looked at me, surprised and replied, "Why should we milk a mare, if we have reindeer? Reindeer milk is the best." It is true that reindeer milk is rich in fat and delicious. A reindeer diet in summer includes grass from luxurious alpine meadows, and the Tozhu believe that milk absorbs the healing effect of the meadow herbs and is a natural remedy for various diseases. The healing effect of reindeer milk over horse milk also contributes to the inferior status of horses.

My host Sergey grew up with horses, and he also appreciated the important role of horses in managing a reindeer herding economy. He stressed that a horse helps in finding lost reindeer, especially during the mushroom season. In August mushrooms grow, and the reindeer became obsessed with them. The whole herd could escape in the taiga, seeking out their favorite mushrooms for a snack. It could be challenging to find lost reindeer in the deep taiga, as they can travel very far. Horses were not interested in the mushrooms and would stay in the *aal.* Sergey stated:

> We kept horses together with reindeer even during the Soviet times. Each family had two to three horses. My father had 400 to 600 reindeer and 20 to 30 horses.[147] If reindeer are missing in the taiga, it is more convenient to look for them with a horse. It is challenging when you do not have a horse. What are you going to do? Just walking! Also, a horse is very good for pack-riding. It is better than reindeer while we migrate to another place because it can carry a load of 50 to 60 kg. A reindeer can carry much less. I had three horses in the past. My last gelding was stolen while I was in Adyr-Kezhig three years ago. It is so challenging to get to the village now. Recently we ran out of salt and it took me almost a week to walk to Adyr-Kezhig and come back to the *aal.* We need horses very much. (Kyrganay 2013 in Arakchaa 2014:66)

It was a painful experience when Sergey's last two horses were stolen from the backyard of his house during the night in Adyr-Kezhig. He felt completely devastated and helpless when his last horse was stolen seven years ago. Sergey described his gelding as a strong Tyvan horse with

[147] The numbers of animals were different, depending on the year.

a good nature. The family did not find the horse, and Sergey and his son were left without transportation to the village. Other herder-hunters and villagers lost their horses in the past from theft. There are no statistics of how many people have lost their horses in the village, but it does happen frequently across the district.

Today, animal stealing is a real problem in rural communities in the republic. There has been a steady increase in *mal*[148] theft since the early 1990s. The Ministry of Internal Affairs of the Tyva Republic, in the beginning of 2015 (first four months) registered 239 cases of stolen livestock, and the total market value of the stolen animals reached 2,000,000 rubles (Chamzyryn 2015). If an owner reports an animal theft to the police, there is no guarantee that the authorities will start searching immediately. *Kaygals* (cattle thieves, rustlers) usually steal animals from backyards at night. The meat is sold for a good price in Toraa-Khem village, or some parts can be exchanged for other goods. If several animals are stolen, *kaygals* will sell the meat to Kyzyl. The police often blame the owners for not having stables for horses and proper supervision of their animals in general. I heard on the news that the Tyvan government was going to launch a new program to introduce animal microchips in order to prevent animal theft in 2015, but it has not been implemented yet.

From the ethnographic literature I read as background to prepare for my fieldwork, I was already aware that the indigenous horse breed was better suited than imported breeds to the taiga conditions. During my fieldwork, I realized that the Tozhu were working mostly with *khaynaktar* (mixed-breed, halfbreed) and I expected to receive replies to my questions that crossbreeds could not compete with the endurance of the purebred Tyvan horse. I observed how the heavier village crossbreeds sank more frequently into the mud and panicked, while the smaller and lighter Shavydar, with strong Tyvan bloodlines, did not sink deeply and handled this situation easily. I asked the Tozhu the following questions: Which horse is better in the taiga: a Tyvan purebred or a crossbreed? Does mixed breeding improve or worsen a horse's working skills? Are the new mongrel horses well-suited in the taiga? As I expected, the majority of people confirmed that the Tyvan breed is a better mount than any other breed, but a second, frequently voiced opinion was that there was no difference between Tyvan breed and crossbreeds.

[148] In this case, it is sheep, goats, cows, and horses.

Contemporary scholars with perspectives on the effects of crossbreeding on indigenous breeds of animals warn that although crossbreeding has the potential to bring out the best of the best, crossbreeding does not automatically guarantee success. Pomishin (1993) argues that indigenous horse breeds are well adapted to the local environment, and no other breed can be as well suited as an indigenous breed. The Soviet state farms intended to develop "super" crossbreeds by mixing aboriginal mares with European stallions, but crossbreeds were prone to problems that they had not predicted. All these experiments of selective crossbreeding were performed without a comprehensive research approach by non-professional breeders. As a result, the herding economy and the traditional knowledge of breeding became vulnerable to the results of "super" crossbreeding. But is it really the case that selective crossbreeding affects the animal populations and threatens their survival and culture of humans in the taiga? Is there any possibility to develop an adaptive strategy to circumvent the negative effects of crossbreeding?

Goodwin (1999) distinguishes two main approaches to human-horse interactions. The first is a co-operative approach based on understanding horse behavior, and the second one is an alternative approach based on human dominance and animal submission. Living and working with horses in the taiga, herder-hunters understand well the mechanisms of horse behavior. The Tozhu stress that purebred Tyvan horses are strong, hardy, and thriving. They are the best at carrying heavy packs and riders in taiga conditions, compared to imported horses and crossbreeds. Throughout their evolution, modern Tyvan horses or crossbreeds have not lost their ability to adapt to a demanding, harsh environment. Some herder-hunters state that there is no great difference between Tyvan horses and crossbreeds because they all adapt well to the cold harsh climate. Anoka just simply said: *"Zver'*[149] *est' zver', on ko vsemu privykaet"* (An animal is animal and it can adapt to everything). The main important factor is that horses should be born and raised in the taiga conditions. In general, horses raised in the taiga do not fear the taiga as horses raised in the steppe-valleys do. Taiga horses learn their essential navigating skills in this particular highland environment in order to go smoothly through swampy paths, high grass, and deep bushes. They do not have a tendency to trip, as the less experienced village horses do. They are not afraid to navigate through deep mud and marsh patches. Herder-hunters often rely on wayfinding skills that enable horses to evaluate the situation. For instance, a three-year old gelding Shavydar looked like a typical Tyvan horse, small and stocky. Because Shavydar was born and raised in the taiga, he

[149] Zver' means beast, particularly a wild animal.

was considered a true taiga horse. He developed good wayfinding skills. Both Andrey and Sayzana completely trusted him riding through difficult terrain. For instance, when a fallen tree was blocking the path, a rider had to go around it. There was a possibility to fall into a deep ditch covered by grass. In this case, the rider completely relied on Shavydar, letting him to choose where to step.

As I mentioned earlier, steppe horses that did not have experience in the taiga, faced a real challenge there. For example, Anoka received a 10-year old female horse as gift from his friend, who lived in the Kyzyl district. This beautiful, tall crossbreed with shiny brown coat was raised on steppe open grassland and had a fertility issue, as she had never had a foal. However, after living one year in the taiga, she gave birth to a male foal. Herder-hunters believed that the alpine healing grass was among the best remedies for animals, and that the grasses helped to increase the horse's fertility and stamina. Although the mare already spent two years in the taiga, she still retained her fear of mud and swampy places. She was easily scared, and her wayfinding skills were worse than Shavydar's. In winter of 2015, the mare died because she could not adapt to the cold winter weather and deep snow. However, her foal turned into a young horse (also a crossbreed), who enjoyed the taiga life. Anoka did not have any doubts that he would be a great taiga horse because he will have grown up knowing the taiga environment.

The ancestors of the Tozhu shaped their reindeer through the prism of horse breeding to fulfill their needs in the best possible way. Some ideas and techniques in reindeer herding were borrowed from early cattle and horse breeders. First, some basics of equestrian tradition were applied and adapted to the particular morphology of the reindeer. According to Vainshtein (1968, 1970), the ancestors of the Tozhu became familiar with the horse at least in the middle of the 2nd century AD, since they began to use a horse saddle. All horse harnesses of the Sayan peoples—the Tozhu, Tofa, and Darkhats (Dukha)—are similar to the harness used by their neighboring cattle breeders, the Tyva, Buryats, and Mongols.

Another thing to note is that horse breeders start training for riding at age three when the horse is emotionally and physically mature. The breaking process takes place in summer. It is not recommended that training start before this age because the horse breast or joints can be damaged.[150] Typically, geldings are ridden. In Tyvan folklore, humans ride only geldings. The

[150] There is an expression "*khöree bustur,*" meaning to hurt the breast.

owner can ride a mare, if he does not have any other option. When I asked Sayzana why they did not ride does in their *aal,* she replied:

> Elders say that it is the same idea as with horses. You ride geldings and you should not ride mares because they need their stamina to become pregnant, to give birth, and deliver healthy foals. You should ride only male reindeer. Does are weaker than male reindeer and they need their health to deliver healthy calves.

This simple and straightforward analogy explains how particular traits of horses were selected and then applied to selecting traits of reindeer. The Tozhu feel comfortable starting reindeer training when the reindeer reaches three years, the age at which the animal reaches maturity. It is easier to train a three year-old than two year-old reindeer. However, if the owner has very few reindeer, a two year-old animal can be chosen to be become a riding bull. The breaking process is simple and short, and it takes three to four days, as in horse training (see Chapter 3).

Another important fact to notice is that providing mineralized salt to reindeer probably came from observing wild animal behavior. Humans knew about the animals' need for salt, which is made up of essential sodium and chloride salts. According to Getty (2009), a horse needs at least 10 mg (2 tablespoon) of sodium chloride per day to survive. If the horse works, its need for sodium chloride also increases. Cattle breeders do the same thing with their animals: cows, yaks, horses, sheep, and goats. Horse breeders and herder-hunters are aware that horses need to graze continuously, and they keep them almost in a wild stage with minimal human intervention. They use crushed rock salt as a draw to encourage their horses to return to the *aal.* In the winter, when forage becomes scarce, this technique is effective with both horses and reindeer. In December, I encountered a hunter-herder who did not send his horses to the valley because his son, with his wife and a three-year-old grandson, came to the *aal* for the hunting season from Adyr-Kezhig. The couple was supposed to leave the *aal* riding horses at the end of December and then leave the horses with their relatives in the valley. The family gave salt to their horses on a daily basis to keep them close to the *aal,* not letting them escape to the valley (Figure 44).

Figure 44. Giving salt to horses. December 2014. Photo by Tayana Arakchaa.

The reindeer is slaughtered in a traditional manner, "*chushkuulaar*," as are horses, cows, and camels. The animal is slaughtered by cutting it with a regular knife at the back part of the reindeer head, and then by cutting the spinal cord on the articulation of the skull with the vertebral column. The animal's blood is then collected in a large bowl for making blood sausage. Vainshtein (1961, 1980b) describes another method of slaughtering the reindeer. The reindeer's head is stunned with the butt of the axe, and then the heart is stabbed with a pointed stick. According to herder-hunters, in both methods slaughtering should be done as quickly and humanely as possible to reduce animal suffering. Slaughtering and butchering is performed by men. Cleaning intestines, making blood sausage, and cooking the soup are considered women's work. Although I observed the first method of slaughtering in the field, my informants confirmed that both methods of slaughtering are practiced, depending on the herder-hunter's skill. Sayzana told me that this method is usually performed by villagers, as they learned it in the village, which is why stabbing with a knife is a more common method than the second. The first method of slaughtering, with the making of blood sausage, demonstrates one of the oldest links between reindeer herding and cattle herding.

Certainly, the reindeer is an essential animal to reindeer herding and hunting economies among the Tozhu, but the horse has great significance as well. Domestication of the horse has had enormous impacts on the opportunities of not only cattle and horse breeders, but also on northern pastoralists. Moreover, the alliance with reindeer was accomplished through the prism of horses. The Tozhu ancestors designed reindeer that differ from horses in the best possible ways. Herder-hunters created for themselves the ability to apply and adapt horse traits and instincts to reindeer and use the reindeer to enhance human survival in harsh taiga environment. This behavioral change is the essential component of early human adaptivity under demanding taiga conditions. Reindeer and horses are interdependent animals in reindeer herding and hunting economies. I suggested earlier that the reindeer has become a substitute for the horse in the taiga. This switch is not permanent, however, as the horse replaces the reindeer during the warm seasons. This flexible switch is necessary to keep the measured balance in the threefold nature of human-horse-reindeer relationships.

Even a brief glimpse into evolving representations of the horse from the Bronze Age to the 21st century reveals a complex set of narratives and images. These archeological accounts, mythic stories, and legends demonstrate the multiple ways in which humans have sought to understand this species. One of the compelling factors is that the Tozhun horses have shown themselves to be versatile and capable of carrying out challenging tasks, in addition to being a rewarding social companion. This species has revolutionized the Tozhun reindeer herding system and continues to contribute to its sustenance. Human societies change rapidly, and humans intervene in reinventing horses. Throughout the history of peoples living in the territory of Tyva, horses have been constantly molded by humans according to their taste, needs, and horse materials available. Their horses ranged in body size from small to large and vice versa. This molding process still continues; as we can see over the past one hundred years, Tyvan horses developed into the *Novo*-Tyvan horses (crossbreeds), larger than the Tyvan horse. Despite these horses' steady increase in size, and despite some size variation, they are still perceived as fundamentally Tyvan horses. The question is if the *Novo*-Tyvan horses will continue to reinvent itself to suit the demanding taiga environment. Despite crossbreeding, it has adapted well enough to continue to live and serve alongside herder-hunters, reindeer, and dogs. At the beginning of the 21st century, new opportunities have arisen to integrate concepts of horse behavior and new knowledge about

crossbreeding has allowed us to update our understanding of horses and the ways that humans should care for them.

CHAPTER 7: CONCLUSION

7.1 Wolf-Pack Approach

This dissertation attempts to shift the dominant point of view on the practices of Tozhu reindeer herder-hunters as "monospecies nomads," who depend on a single key animal, reindeer. Such views have encouraged the propagation of an incomplete picture of the taiga dwellers and neglected the social complexities that define taiga human-animal communities. The idea that reindeer are the only one out of several important animals in taiga reindeer herding communities is grounded in the Soviet administrative discourse of northern/tundra reindeer herding and early Soviet ethnographic accounts. Generally, these accounts did represented reindeer as the only economically profitable animal that could be sustained in the taiga. Moreover, ethnographic studies about the Tozhu have failed to depict other animals as interdependent partners in the daily life of herder-hunters and their mutual sociability resulting from living collectively. My research leads me to suggest that we should instead be seeing the Tozhu herder-hunters from a multispecies prospective, through a prism that balances the importance of the reindeer with the other their important animals in the lives of the Tozhu, most significantly the horses and dogs, on which the herder-hunters also depend upon. In chapter 1, I introduced the ethno-ethological and etho-ethnological approaches. The works discussed in this chapter, particularly those by anthropologists, explore the processes of domestication and the patterns of animal and human behaviors in conjunction with each other, by examining of how humans and animals adapt to living in shared environments. These studies focus primarily on non-Western societies and their domesticated species and evaluate the degree to which human-animal relations can be explained as adaptive responses to the habitats in which they live. A main question that emerged from the analysis of ethnographic data compiled during my research is the following: How are the relations of Tozhu herder-hunters with their reindeer, dogs, and horses best understood in terms of hunting and herding practices?

To answer this question, I examined the practices and representations of Tozhu herder-hunters who follow what I call the "wolf-pack approach". Focusing on this approach has provided a fruitful conceptual starting point for understanding the larger framework in which Tozhu have learned to use the desirable features of domesticated animals, and more broadly for interpreting the co-existence of humans and animals in the taiga. The wolf-pack approach suggests that herder-

hunters mimic wolf hunting behavior while relying on dogs' abilities to track and capture their prey. The Tozhu recognize dogs as being inherent hunters and pack members who must be controlled by a human acting as the ultimate pack leader, guiding the behavior of the dogs. Previous literature on dog behavior has incited controversy among scientists and dog trainers. This controversy has already raged for more than a century. While traditionalist trainers promote the wolf-pack approach, other cynologists are highly critical of the manner in which academics employ it to shed light on human-dog relationships. Famous dog behaviorist Cesar Millan and his co-author Jo Peltier (2014) state that it is crucial to understand that dog's pack mentality in interactions with other dogs and humans:

> A dog' pack is his life force. The pack instinct is his primal instinct. His status in the pack is his self, his identity. The pack is all important to a dog because if anything threatens the pack's harmony, it threatens each individual dog's harmony. If something threatens the very survival of every dog in it. The need to keep the pack stable and running smoothly is a powerful and motivating force in every dog—even in pampered poodle that has never met another dog or lrfy the confines of your backyard. Why? It's deeply ingrained in his brain. Evolution and Mother Nature took care of that (Millan and Jo Peltier 2014:76)

According to Bradshaw, the idea "that dogs, because of their ingrained "pack mentality," can be controlled only if their owners adopt the role of pack leader, and that the most reliable way to insure this outcome is by the use of physical punishment" (Bradshaw 2011:96). has been challenged by recent canine studies and rejected by many scientists and dog trainers alike. My opinion is that in the specific context of the taiga environment, the wolf-pack approach remains fruitful and inspiring for the understanding of herder-hunters' relationships with their dogs, and that it can be extended to include other species living alongside humans, such as reindeer and horses.

We must keep in mind that our knowledge of animal behavior can be key to our interpretations of human behavior (Laland and Brown 2002). Lacking a wolf's fast legs, humans 'borrowed' reindeer legs by learning to ride this animal. As a result, their two bodies blended into one, and the human became more of a "wolf" managing the hunt singularly. Therefore, the pack hunting pattern forced early hunters to domesticate reindeer allowing them to form a human-led 'wolf' pack. Today, Tozhu herder-hunters still strongly encourage this wolf-pack mentality in their camps.

A number of researchers have proposed economic and ecological adaptation models, describing the domestication of reindeer based on the taiga dwellers' imitation of their horse and cattle breeder neighbors to the south (Ingold 1980, Laufer 1917, Vainshtein 1961, 1980b, Vasilevich and Levin 1951). We can see that they ignore one important ethnographic fact, which is easily revealed by a closer reading of the pastoralists' mythology and cosmology. These scholars miss the reality that reindeer domestication is connected more fully to an imitation of wolf-pack hunting behaviors than simply a horseback riding imitation. The heart of this multi-species ethnography of the Tozhu lies in the ramifications of mimicking different species' efficacious behaviors, particularly hunting strategies and including such actions as the sounds they produce. I argue that in the Tozhu case, we confront a situation with double and multiple mimicries, as the early hunter-foragers successfully mimicked wolves' hunting strategies, while simultaneously borrowing equine riding techniques from their livestock-raising neighbors, who practiced horse-riding eagle falconry techniques. Without the strong collaboration with dogs, reindeer domestication would have been less plausible. It is well-known that dogs were domesticated because of their hunting abilities (Clutton-Brock 1999, Gupta 2004), and hunting activities with these hunters became a stimulus for reindeer domestication; thus, reindeer domestication developed in support of hunting activities in the taiga. Such taiga "hybrid associations" represent an analogue "wolf-pack" community, in which humans and animals are involved in mutually beneficial relationships of cooperation. Moreover, dogs, reindeer, and horses complement each other's abilities, depending on the season and human needs.

As previously mentioned, the wolf-pack approach came under attack from promoters of reward-based methodologies in the 1990s. However, it would be complete misconception to see the Tozhun wolf-pack approach as being built only on expressions of human dominance. In a combined human-dog-reindeer pack, the human needs to be an effective team leader to achieve a successful hunt. In fact, the Tozhu not only understand the wolf-pack mentality but also apply it to their hunting methods, where humans work collaboratively with other pack members. This team approach includes elements of dominance, trust, love, and shared hunting passion. The job of the herder-hunter is to coordinate the hunt for each pack member with the help of his dogs. Dogs will locate their prey, chase it down, and give a signal to the pack leader, who follows after them with his weapon. As a rule, the human leader kills the prey and rewards his pack members by sharing the prey with them. There is some degree of dominance and hierarchy in human-animal

relationships, in which a herder-hunter will assert his leadership, including physical punishment of a dog when necessary. Nevertheless, my data demonstrate that herder-hunters have largely benevolent relationships with their animals, based on trust, because dogs are perceived as independent entities and reliable hunters in their own right. Hunting with dogs is an expression of the trust that exists between pack members, the more a hunter and his dogs hunt, the more they get to know and respect each other. A herder-hunter has deep knowledge about each dog's hunting competency, prey-specific skills, experience, and personality.

7.2 Human-Animal Relations

This ethnography shows that for the Tozhu, animals are not strictly domestic or strictly wild. Reindeer, dog, and horses live in the human domain but are also allowed to roam freely in the taiga and come back to the camps on their own. Oehler proposes a "notion of 'deliberate incomplete domestication,' framing it within the ability to withhold one's capacity from interspecies social relations" (2016:217). He argues that the Soiot have historically practiced deliberate incomplete domestication. Drawing on Oehler, I suggest that half-domestication in the taiga hunting setting allows the Tozhu to train their dogs, reindeer, and horses to hunt or be ridden effectively, and at the same time removes the burden of taking full care of them. The condition of these animals fluctuates between captivity and freedom, as they move across the domestic/wild dichotomy.

The Tozhu have an intimate relationship with their reindeer, and the central feature of the reindeer herding system is the breeding of riding reindeer. Riding activity is built on the management of "joint commitment" in which multiple agents, both humans and animals, are engaged in activities based on trust with "minimal shared knowledge and poor means of communication" (Stépanoff 2012:288). Willerslev et al. (2014) suggest that cosmology may be a prime motivator in reindeer domestication, providing parallels between the ritualized killing of wild animals by hunters and the sacrifices of tamed reindeer enforced by reindeer herders. I agree with these researchers, who have promoted economic and ecological explanations for these behaviors, suggesting that the main motive for domesticating reindeer was primarily to maximize hunting success in the taiga zone, and, secondarily, to exploit animal products such as milk, yogurt, cheese, cottage cheese, and hides. Surrounded by cattle and horse breeders, these early hunter-gatherers borrowed many ideas and techniques from their neighbors, including equestrian

traditions, which were applied and adapted to fit the specific morphology of reindeer. Reindeer are tame animals that cooperate with humans and are the unquestioned ideal means of transportation in the harsh taiga environment. Reindeer were good candidates for domestication, not only because they move swiftly in the taiga, but also because they perform geospatial tasks better than horses. Reindeer are better at walking, running, and navigating the boreal forest, and have abilities are superior even to humans and horses. They do not need to be taught where to step to move through slushy mud or swamps, because their morphology is perfectly adapted to these environmental conditions, and, to the fullest extent, they navigate these challenges without special training. Herder-hunters were able to create domesticated reindeer as "living tools" (Shipman 2015:197) by borrowing useful abilities from them, such as speed, knowledge of the environment, and internal navigation abilities. Trust in the animal is a crucial part of the riding process; human and reindeer must work cooperatively, and this cooperation requires knowing the environment and understanding each other's intentions. Although the communication involved in this process can seem to be minimal and trivial, it is effective enough to perform complex tasks well and cooperatively. The ability to comprehend each other is a life-long learning process, as domestication is a continuous process, and each generation of offspring must to be tamed from a starting point of no later than three to four days after birth. This is a crucial period during which interactions with humans will have a lasting influence on a reindeer's ultimate ability to be domesticated.

Domestication of reindeer was a turning point in the history of the early taiga dwellers. Rômulo Alves and Ulysses Albuquerque (2018) stress that processes of domestication are two-way reciprocal relationships between humans and animals. In their quest for greater success hunting prey animals, reindeer riding required human adaptations to reindeer morphology as well as reindeer adaptation to humans. I suggest that the reindeer domesticated humans as well as the other way around, turning them into appropriately sized riders to accommodate the fragile reindeer spine. Such crucial factors for riding as height and bone density became a part of an adaptive human breeding strategy in the taiga. In the taiga, the estimable position of a "wolf hunter" and concomitant hunting successes required hunters to have a small stature and light body weight, allowing them to move and hunt more efficiently with their reindeer partners to achieve a success that would be unattainable for taller, heavier people. Under selective pressures and an active way of life, the Tozhu have developed consistently smaller bones, shorter height, and less body weight

than other Tyva. The ability to ride reindeer and having a small human stature run so closely parallel to one another that they can be seen not only as necessary precursors to a successful kill, but also as integral aspects of reindeer-human sociality.

Soviet scholars and the Slavic population generally have deemed the Tozhun way of hunting without traps to be archaic, primitive, and ultimately unprofitable. Canids and ungulates have rarely been depicted as sophisticated biotechnologies, making hunting more selective and efficient under taiga conditions. While tracking a wild animal, a dog can switch to pursue another animal, and this type of hunting can be more selective than traps, which catch all kinds of animals indiscriminately. Selectivity, speed, and excitement represent an ideal hunt for the taiga dwellers. The idea of relying on dogs and reindeer for direction in the hunt provides clues for understanding the underlying reasons that the Tozhu, having special relationships and unique understandings of multiple animals, have molded them into suitable hunting partners. Shipman (2015) states that the mimicking of wolves' hunting behaviors relying on the aid of other animals heralded the beginning of a new era of hunting in the taiga and changed human ways of life. When the biotechnological revolution of multispecies animal cooperativity reached the taiga zones, the forest dwellers adapted it to their needs and particular environmental conditions. Considering the harsh environment and limited tools available to early hunter-foragers, it is impressive that hunting with multiple animal species remains the highest technological achievement ever made by forest hunter-foragers. This old technology has endured for centuries and still has not been replaced by any new, more-effective innovations. Although the Soviets introduced "innovative" hunting techniques, including novel types of leg-hold traps to Tozhu herder-hunters (as well as poison to combat predation by wolves), they were abandoned as soon as the collective farms disappeared. The traditional taiga hunt, involving collaboration between these animal species in the forest, was revitalized in the absence of socialism. Throughout history, taiga hunter-foragers have honed their skills and molded reindeer and dogs to display certain traits in a way not dissimilar to tool-making. However, these animals are not just "living tools," they are also reliable hunting partners who are able to read human signals as well. The taiga reindeer is a living masterpiece of human work and molding. They have become the tamest reindeer by comparison to their tundra cousins. They are smart enough to be taught to carry humans and collaborate with them and dogs during extended hunting trips.

7.3 Pure Breeds or Crossbreds?

According to Stanley Walens (1987), all cultures have used animals to reflect the nature of humanity and symbolize characteristics of individuals and societies themselves. Because of these close relationships between humans and animals, humans using animals can be seen to symbolize many aspects of life itself (Lawrence 1997). Examples of animals being used as representations of certain races and cultures are found in the Tozhu district, as well as in many places around the world. Preoccupations with breed and pedigree, introduced by the Soviet breeders, transformed views in Tozhun communities regarding the status of the Tyvan Laika. A Laika is never simply a Laika, but should be either purebred West Siberian Laika or a purebred East-Siberian Laika. Because Soviet breeders were obsessed with creating "super Laika" breeds, what they imagined to be the best of the best, the Tyvan Laika experienced intense crossbreeding, and the well-promoted purebred West Siberian Laika finally won fidelity from Laika breeders. One of the consequences of developing these "mongrel technologies" is that certain breeds came to symbolize race and hierarchy in Tozhu. By improving the Laika breeds through selective breeding and distributing them widely across the territory of Russia, breeders and officials successfully separated the Laika from the image of reindeer herder-hunters. The West Siberian Laika has become very popular among the dominant Slavic population. This breed has developed as a symbol of the Slavic population, which is more "cultured" than the Tozhu, familiar with traditional cynological studies and techniques of breeding, and have the requisite formal knowledge of dog training and behavior. Non-purebred, skinny, and thievish, the Tyvan Laika represents a truly mongrel prowess. These dogs symbolize less "cultured" indigenous population and archaic (perceived to be unprofitable) ways of hunting. Purebreds are perceived as good hunters while mongrels are seen as being prone to failure, regardless of the fact that reindeer herder-hunters' dogs are widely recognized as the best hunting partners. Despite intense crossbreeding and current incidences of dog eating, today the Laika population has been restored in the Tozhu district and Tozhun Laika dogs should be considered a type of *Novo-Tuvinskaya Laika* (Russian) or the *Novo*-Tyvan Laika breed, the New Tyvan Laika. As in the past, these dogs also represent a diverse group of Laika subtypes. Although they differ in the proportion of the size of their heads and carriage of their tail and ears, they differ insignificantly in body size, having a relatively standard medium size. With new breeds coming in from different Russian towns and cities, herder-hunters'

traditional knowledge about dogs can be challenged by new breeds, but the Tozhu will be able to adapt to this influx of new mongrel types.

7.4 Dog Eating

Despite the fact that dogs were considered to be the kin of humans in the recent past, dog eating remains a purely Tozhun phenomenon in the Tyva Republic, as it is strongly believed that boiled meat and fat are cures for tuberculosis, a common disease in the republic. Although dog meat is not perceived by the local population as a food source, it was consumed on a large scale in the villages after the collapse of the Soviet Union, during which time people experienced critical food shortages. Even though more than twenty-five years have passed since the fall of the Soviet Union, consumption of dog meat has remained as a phenomenon in the villages and has been mainly associated with tuberculosis-infected ex-prisoners seeking a cure or boost to their immune systems. A low standard of living contributes to this high rate of tuberculosis infection and remains a critically common health problem in the republic. Villagers often claim that dog meat is a popular food for the unemployed and poor people who are unable to afford to buy food at the grocery stores. Dog eating as medicine and a source of food is mostly regarded as a male activity, particularly common among young unemployed men. Attitudes towards dog eating remain ambiguous among the Tozhu, not met with approval, while at the same time not inciting strong disapproval when used as a tuberculosis treatment. At this point it is difficult to distinguish between cases in which dog meat is eaten for medical purposes by tuberculosis-infected men and cases in which dogs are used as sources of protein for impoverished Tozhu. Ex-prisoners belong to this group of unemployed and disadvantaged people; it is socially acceptable for them to eat dog meat both because they are infected with tuberculosis and because they are economically disadvantaged. Likewise, impoverished villagers might have tuberculosis and also consume meat for the same reasons. Just as dogs are surely edible and constitute an important nutritional supplement in the villages, the power of the natural human affinity for dogs is felt not only through direct interactions between humans and dogs but also through dog eating variably being constructed in relation to betrayal of kinship and crime. Canids feature in Tozhun culture in a number of ways; as hunting partners, way finders, survival assets, guards, pets, medicine, and food.

7.5 Human-Horse Relationships

Although the Tozhu do not consider themselves to be serious horse breeders, they recognize that their lives would be almost inconceivable in the taiga without the aid of horses. Tyvan horses can be found in such unusual locations as the highland tundra, where reindeer feel comfortable, but horses are hardly at home. Reindeer are generally restricted to highland areas that are cooler, while horses flourish in the lowland steppe-valleys as inhabitants that can live in the warm seasons of the tundra-taiga comfortably. How do horses fit into this picture of the tundra-taiga? They have an incredible ability to thrive on food not eaten by humans, reindeer, or dogs; they feed on grasses and are capable of digging forage from deep beneath the snow, thus not requiring hay preparation. Horses are neither strictly domestic nor strictly wild. Because horses are moved in the fall to the lowland valleys in order to feed on grass, they do not participate in the region's main economic activity, hunting, which is why they hold an inferior status below reindeer and dogs. The Tozhu are able to live in the taiga because of their understanding and skillful exploiting of each animal's strengths and weaknesses, as well as their flexibility in allowing each species to complement each other, to bring out the best of each species' abilities. Symbioses of multiple animals are the backbone of these taiga hunting and reindeer herding economies.

For the last hundred years, the Tyvan horse has undergone a series of transformations. The Soviets were obsessed with improving the indigenous breeds and producing the best animals they could to meet a European standard. Typically, the Russian and European breeds were viewed by Russians as superior in comparison to the primitive native horse. The physical traits of the stocky Tyvan horses were subject to scrutiny, as the abilities of animals to perform tasks were judged strictly by animals' appearance. Breeds such as the Russian Trotter, Budënny Horse, Orlov Trotter, Arabian Trotter, English Thoroughbred, Minusinsk Horse, and Kuznetsk Horse were crossed with these "wild mongrels" in order to bring some "purity" and remove unattractive "mongrel" features. This later qualified them to perform a number of arduous tasks in the developing Soviet agricultural sector. As a result, contemporary Tyvan horses are larger than the pre-Russian type of horse. Despite intense crossbreeding, these improved mongrels, and particularly the first generation of such crossbreeds, have inherited a unique ability to thrive in a cold, harsh climate.

In recent years, the Tyvan horse has received much attention; it is on the edge of extinction. The Tyvan government has launched a program for preserving indigenous animal breeds, including the Tyvan horse, and instituted new rules at the Naadym festival race. The results of

these governmental efforts are quite ambiguous. Some horse breeders, dedicated to preserving the Tyvan horses and concerned about their welfare, continue to improve the breed by crossing it with other imported breeds, increasing genetic diversity. However, as in any breeding practice, it is necessary to bring a new gene pool into the herd; the Naadym Festival race stimulates breeders to strive toward certain goals for the next generation in order to obtain a group of outstanding performers. At this point, their goals become incompatible with the larger goal of preserving the indigenous type of horse. At the same time, since the third century BC, under the Afanasevo culture, large and small horses resided on Tyvan territory. Since the Turkic Era, nomads have exchanged cattle and horses with their neighbors and the Chinese, crossing local breeds with unrelated horses from geographically remote regions. Today, in an era of unprecedented globalization, breeders use similar breeding methods, but have many options from which to choose a sire and a dam from unrelated individuals; and this is regarded as the best way to produce good Tyvan horses. Moreover, experienced breeders and traditional herders can readily offer identifiably Tyvan horses: small and stocky. The Tyvan horse has turned into the *Novo-Tuvinskaya Loshad'* or *Novo*-Tyvan horse and continues to reinvent itself. The question remaining is whether the *Novo*-Tyvan horse will be able to preserve its qualities in another ten generations. What type of Tyvan horse will emerge as the heir to the present stock after a hundred more years pass?

As for the Tozhu, the majority of horses in the district at present are crossbreeds. Although the Tozhu recognize that their purebred Tyvan horses are stronger and hardier than other crossbreeds in the taiga, they do not make a distinction between crossbred and purebred animals. The Tozhu think that crossbreds have the ability to adapt to the taiga well. The basis of idealized horse training is that horses should be raised in the taiga, gaining knowledge about the environment and navigation through the taiga inherently as they grow up. This knowledge of the environment and navigating skills are a vitally important part of domestication. Growing up under difficult taiga conditions, the horse develops the strength and stamina to carry a rider without suffering any damaging effects. Safe riding techniques are a critical requirement for the long-term success of taiga horses. The horse functions in the taiga not only as an important means of transportation, but also a "living navigation tool" that helps shorten the path for human travel and avoid dangerous, deep ditches. Horses have better visual acuity than humans and, as biological creatures, have active instincts of self-preservation and a heightened awareness of dangers lurking under the thick grass. Herder-hunters rely on the animals' sense of self-preservation to keep both human and horse alive

and safe in navigating the taiga. In addition, the luxurious pastures of Tozhun alpine meadows have positive effects on horse health and help to increase strength and stamina.

For the Tozhu, initially, horse breeding could be interpreted as central to human-horse-reindeer-dog co-existence paradigms in the taiga environment. Early taiga hunter-foragers shaped the reindeer through the prism of extant horse breeding techniques in order to fulfill their needs in the best possible way. The basics of the equestrian tradition were applied to the physical features of reindeer with a specific Tozhun result.

7.6 Contribution and Future Research

This study offers a multi-species approach to human-animal relationships. Entirely dedicated to taiga reindeer herder-hunters, it advances our understanding of the deep connections between humans and their domestic animals in the taiga environment. Scholars in many fields, such as anthropology, archeology, animal studies, biology, and ethnozoology have written volumes discussing human-animal relationships. These interdisciplinary studies examine humans' alliances and interactions with animals. Central to the analysis of human-animal relationships in my dissertation are etho-ethnological and ethno-ethological approaches, which produce a valuable picture of human-animal interdependence in Tozhu life. Each chapter of this study contributes to study of human-animal relations, animal studies, and Siberian ethnography.

The initially stated aim of this research is to study how humans and animals cooperate and co-exist cooperatively in the taiga. We believe that the data presented in this dissertation itself suggest directions for future and continuing research. This research highlights particularities of human-dog-horse relationships among the Tozhu reindeer herder-hunters, which have not been prominently featured previously in the academic literature. There are a number of gaps in the knowledge about indigenous breeds of animals, and there is still much to learn about human agency in the taiga rural communities to fill in these gaps. In particular, human preoccupations with dog breed standards and obsession with improvement of dog skill and appearance was led by the need to see dogs as extensions of humanness. As a result, dogs express human preferences and biases in relation to the traits of the dominant culture. It could be fruitful to investigate the question: can dog-human relationships in the hunting community be better understood in the context of purebred Laika or these mixed-breed dogs? Another potential research topic could focus on the prevalence of dog stealing and eating practices, raising questions about the current status of dogs and Tozhun

attitudes toward the practice of dog eating as folk medicine. Another line of potential further inquiry concerns horses and whether the quest for novelty and continual improvement will overshadow relationships between herder-hunters and horses. Herder-hunters could face unexpected challenges as crossbreeds with more European blood potentially overshadow and substitute for more traditional Tyvan horses. More research should be conducted studying the roles of horses and dogs, not only among Tozhu reindeer herder-hunters, but also cattle and horse breeders in Tyva.

7.7 Closing Remarks

While I was in the field, I realized how reindeer, horses, and dogs were each important to Tozhun reindeer herder-hunters. However, my goal was to demonstrate not only how humans use their animals and how both humans and non-humans have influenced each other for thousands of years, but also to show how herder-hunters maintain relationships with multiple animals in the taiga. I have come to learn that these taiga relationships are balanced because all these animal species are essential contributors to the *aal,* and that one species cannot be seen as being smaller or more important than others. Humans and non-humans co-exist in a pantomimed "wolf-pack" form with "joint commitment" relationships, where a herder-hunter takes on the role of pack leader and uses the knowledge and skills of his pack members to achieve the collective advantage of hunting and survival success. There is a critical period of gaining familiarization with humans for each species that are crucial to developing the domestication of animals. As of yet, there is no simple way to measure "domestication" as an attribute for herd animals such as reindeer and horses, as they remain not completely domesticated. The Tozhu are in a constant process of domestication, in which they keep a measured balance between animal captivity and freedom. Each season, the priority in household economies change and many things can happen simultaneously, and it can be a challenge to manage all species in the household. The Tozhu have found ways to keep their focus and balance by letting animals range freely, but sometimes keeping them in captivity, reducing reindeer numbers, and removing horses from the *aal* in the fall when conditions become challenging.

Mythology and ceremonial practices reveal the special roles of reindeer, horses, and dogs among the Tozhu. The peoples of the Sayan-Altai region consider wolves and deer to be their totems. Information about this mythic kinship indicates extremely complicated ethno-genetic

components of the modern peoples of the Sayan-Altai region, including the Tozhu, who have Samoyedic and Tungus components. Considering the East Siberian Laika reside in a huge territory spanning from eastern Siberia to the Amur region of the Far East, I have come to infer that the ancestors of the Tozhu were once dog breeders who came to occupy the Tozhu taiga zone. Some groups were already familiar with horse breeding but lost this technology at some point. Soon new settlers domesticated reindeer adapted horse husbandry techniques to suit reindeer morphology, and subsequently enhanced their hunting success. Later, newcomers adopted the language of their neighbors; their vocabulary concerning reindeer herding comes from Turkic linguistic origins. If this hypothesis is to be accepted, these questions remain to be answered: who were the original Laika breeders? And when did they domesticate wolf-dogs? Although dogs are extremely significant for cattle breeders and reindeer herder-hunters, there are no special terms for identifying different dog breeds living in the territory of Tyva, and all Tyvan dogs fall into one of two categories: shepherd dogs (Tyv. *kadarchy yttar*) and hunting dogs (Tyv. *anchy yttar)*. Notions of breed were introduced during the Soviet era, favoring symbolic appearances over functional competence.

Relying on dogs, reindeer, and horses, the Tozhu are able to survive and thrive in the harsh taiga environment. Without this triad of co-adaptive animal alliances, the hunting success of the Tozhu would not be guaranteed. Moreover, without dogs, reindeer domestication seems be less plausible, as humans need not only need the fast legs of reindeer but also the strong jaws, sharp vision, good hearing, and keen sense of smell of their dogs to have a successful hunt. Although a coherent body of theory on reindeer and horse domestication has emerged, there are a few studies on dog domestication in Siberia and Inner Asia. More research should be done on dog domestication and human-canid relationships in these regions in order to develop a more nuanced and complete understanding of patterns of life in Tozhu and the taiga.

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